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ABSTRACT

A questionnaire was developed to survey 120 students during the "Meet Your College" presentation of the College of Agriculture and Natural Resources of Michigan State University, during "Welcome Week" in the fall of 1984. The data were analyzed to compare freshmen students with transfer students, male students with female students, and students of various residency backgrounds (rural, small town, small city, large city). All three sets of comparisons found differences in preferences for types of college information, differences in the sources of information that were influential in their college choice, and differences in preferences for recruitment activities. Positive influences on deciding to enroll included the quality of the academic programs, academic reputation, atmosphere/appearance of the campus, quality of the faculty, and other factors. Recruitment activities considered to be helpful included visiting a family member or friend on campus, talking with university students or graduates, talking with high school counselors or teachers, participating in university open houses or athletic events, seeing television advertisements or stories, and others. Appendices contain a copy of the questionnaire and tabulated data from questionnaire responses. Includes 60 references. (JDD)

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THE EFFECTIVENESS OF SELECTED RECRUITMENT TECHNIQUES ON UNDERGRADUATE STUDENTS ENROLLING IN THE COLLEGE OF AGRICULTURE AND NATURAL RESOURCES AT MICHIGAN STATE UNIVERSITY

(Part I)

By

Gene Foster Graham

A RESEARCH PROBLEM

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Agricultural and Extension Education

May 9, 1990

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ABSTRACT

THE EFFECTIVENESS OF SELECTED RECRUITMENT TECHNIQUES
ON UNDERGRADUATE STUDENTS ENROLLING IN
THE COLLEGE OF AGRICULTURE AND NATURAL RESOURCES
AT MICHIGAN STATE UNIVERSITY

(Part I)

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Gene Foster Graham

There is a serious shortfall of undergraduate students enrolled in degree programs which will prepare them to enter careers in the fields of agriculture and natural resources. Recruitment plans have been designed and implemented in order to address this shortage. Yet, additional information about the students' preference for specific types of information, sources of information, recruitment activities, and the timing of their college choice process, would help to strengthen college recruitment efforts. The objectives of the study included a comparison of the students' reported preferences according to their freshman or transfer admission status, gender, and residency backgrounds.

A questionnaire was used to survey 120 students during the College of Agriculture and Natural Resources "Meet your College" presentation at Michigan State University, during "Welcome Week" Fall Term 1984.

The data was analyzed using chi-square and comparison of percentages.

The comparison between freshmen and transfer students showed that freshmen students reported a significantly higher preference for a variety of types of information. They also reported notable differences in the sources of information which were influential in their college choice. The comparison also demonstrated significant differences in their preference for specific recruitment activities and the timing of their decisions to apply for admission to the University and to pursue a major in the College of Agriculture and Natural Resources.

The comparison between male and female students showed significant differences in their preference for specific types of information and notable differences between their preference for specific sources of information. The male and female students reported significant differences in their preferences for specific recruitment activities, but showed only minor differences in the comparison of the decisions to apply for admission to the University and to pursue a major in the College of Agriculture and Natural Resources.

The comparison between students from a rural area or farm, village or small town, small city, and large city showed significant differences in their preference for specific types of information, and sources of information. They also reported significant differences in their preferences for specific recruitment activities, but showed only minor differences in the comparison of their decisions to apply for admission to the University and to pursue a major in the College of Agriculture and Natural Resources.

DEDICATION

The study is dedicated to my grandfathers, Benjamin H. Graham and Lawrence C. Foster; they each had a tremendous influence on my life. They were farmers by occupation and were dedicated to their land, families, and communities.

ACKNOWLEDGMENTS

The writer wishes to express his thanks to those who have contributed to the development of this study:

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TABLE OF CONTENTS

Page

I. INTRODUCTION OF THE STUDY

A. Introduction....1

B. Purposes....3

C. Importance....4

D. General Uses and Limitations....6

E. Assumptions....9

F. Hypotheses....10

G. Definitions....11

II. REVIEW OF LITERATURE

A. Introduction....14

B. Information....15

C. Sources....17

D. Time Period....19

E. Recruitment Activities/Format....21

F. Supply and Demand....23

G. Summary....24

III. DESIGN AND PROCEDURES

A. Experimental Design....26

B. Population and Sampling....27

Page

C. Assumptions on Which the Questionnaire was Based.....28

D. Instrumentation.....30

E. Data Analysis.....31

IV. FINDINGS

A. Introduction.....33

B. Characteristics of the Sample Population.....34

C. Comparison of Freshman and Transfer Students.....51

1. Type of Information.....52

2. Sources of Information.....58

3. Recruitment Activities.....63

4. Timing of College Choice.....73

D. Comparison of Male and Female Students.....76

1. Type of Information.....78

2. Sources of Information.....81

3. Recruitment Activities.....89

4. Timing of College Choice.....92

E. Comparison of Students by Residency Background: Rural/Farm, Village/Small Town, Small City, and Large City Students.....95

1. Type of Information.....97

2. Sources of Information.....101

3. Recruitment Activities.....109

4. Timing of College Choice.....114

Page

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary....119

1. Introduction....119

2. Types of Information....119

3. Sources of Information....121

4. Recruitment Activities....125

5. Timing of College Choice....127

B. Conclusions and Recommendations....129

1. Introduction....129

2. Types of Information....129

3. Sources of Information....132

4. Recruitment Activities....142

5. Timing of College Choice....147

C. Recommendations for Further Study....149

BIBLIOGRAPHY....153

APPENDICES....159

Appendix

A. Questionnaire....159

B. Tabulated Data from Questionnaire Responses....167

LIST OF TABLES

Page

1. The number of students surveyed, and the percentage and number of respondents to the survey.....28

2. Chi-Square comparison of freshmen and transfer students' influence response for large University student population...53

3. Chi-Square comparison of freshmen and transfer students' influence response for size of campus.....53

4. Chi-Square comparison of freshmen and transfer students' influence response for residence halls.....54

5. Chi-Square comparison of freshmen and transfer students' influence response for dormitory food.....54

6. Chi-Square comparison of freshmen and transfer students' influence response for campus atmosphere or appearance.....56

7. Chi-Square comparison of freshmen and transfer students' influence response for location of the University.....56

8. Chi-Square comparison of freshmen and transfer students' influence response for parental preference.....57

9. Comparison of freshmen and transfer students' identified source of first hearing about the College of Agriculture and Natural Resources.....59

10. Comparison of freshmen and transfer students' identified source of information which most influenced the enrollment decision.....61

11. Comparison of freshmen and transfer students' perceived preference for sources of information which influence the enrollment decision.....64

12. Chi-Square comparison of freshmen and transfer students' preference for visiting a friend on campus.....67

Page

13. Chi-Square comparison of freshmen and transfer students' preference for talking with University graduates.....67

14. Chi-Square comparison of freshmen and transfer students' preference for talking with high school counselors.....68

15. Chi-Square comparison of freshmen and transfer students' preference for talking with high school faculty.....68

16. Chi-Square comparison of freshmen and transfer students' preference for a radio advertisement/story.....69

17. Chi-Square comparison of freshmen and transfer students' preference for receiving a letter from the College.....71

18. Chi-Square comparison of freshmen and transfer students' preference for receiving a letter from the University.....71

19. Chi-Square comparison of freshmen and transfer students' preference for receiving University publications.....72

20. Chi-Square comparison of freshmen and transfer students' preference for attending an FFA program on campus.....74

21. Chi-Square comparison of freshmen and transfer students' timing of the decision to apply for admission to the University.....75

22. Chi-Square comparison of freshmen and transfer students' timing of the decision to enroll in a major in the College...77

23. Chi-Square comparison of male and female students' influence response for Big-Ten sports.....79

24. Chi-Square comparison of male and female students' influence response for dormitory food.....79

25. Chi-Square comparison of male and female students' influence response for student/faculty ratio.....80

26. Comparison of male and female students' identified source of first hearing about the College of Agriculture and Natural Resources.....82

27. Comparison of male and female students' identified source of information which most influenced the enrollment decision....85

Page

28. Comparison of male and female students' perceived preference for sources of information which influence the enrollment decision.....87

29. Chi-Square comparison of male and female students' preference for visiting a friend on campus.....90

30. Chi-Square comparison of male and female students' preference for talking with high school faculty.....90

31. Chi-Square comparison of male and female students' preference for attending a University athletic event.....91

32. Chi-Square comparison of male and female students' preference for attending a 4-H program on campus.....93

33. Comparison of male and female students' timing of the decision to apply for admission to the University.....94

34. Comparison of male and female students' timing of the decision to enroll in a major in the College.....96

35. Chi-Square comparison of students' residency background influence response for agriculture and natural resources reputation.....98

36. Chi-Square comparison of students' residency background influence response for Big-Ten sports.....100

37. Chi-Square comparison of students' residency background influence response for parental preference.....100

38. Chi-Square comparison of students' residency background and identified source of first hearing about the College of Agriculture and Natural Resources.....102

39. Comparison of students' residency background and identified source of information which most influenced the enrollment decision.....104

40. Comparison of students' residency background and perceived preference for sources of information which influence the enrollment decision.....107

41. Chi-Square comparison of students' residency background and preference for talking with University graduates.....110

42. Chi-Square comparison of students' residency background and preference for talking with high school counselors.....112

Page

43. Chi-Square comparison of students' residency background and preference for talking with high school faculty.....112

44. Chi-Square comparison of students' residency background and preference for attending an FFA program on campus.....113

45. Chi-Square comparison of students' residency background and preference for attending a 4-H program on campus.....115

46. Comparison of students' residency background and timing of the decision to apply for admission to the University.....116

47. Comparison of students residency background and timing of the decision to enroll in a major in the College.....118

CHAPTER 1

INTRODUCTION

A. Introduction

The College of Agriculture and Natural Resources at Michigan State University experienced a declining enrollment, in four-year undergraduate programs, from 1977 through 1983.[1] Other colleges of agriculture/natural resources/life sciences also experienced declines in undergraduate program enrollment during that time period.[2] The trend developed in spite of United States Department of Agriculture (USDA) studies that indicated an increased demand for graduates of the programs offered in these colleges.[3] The resulting shortage of professionals in those areas was a major concern to university and college officials.[4]

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[1]College of Agriculture and Natural Resources, Michigan State University, "Proposed Master Recruitment Plan," comp. James E. Jay, (East Lansing, Michigan, College of Agriculture and Natural Resources, 1982), app. C, p. 3.

[2]James E. Jay, Assistant Director for Academic and Student Affairs, memo, July 1984.

[3]Allan D. Goecker, Supply and Demand: College Graduates in the Food and Agricultural Sciences, (Resident Committee on Organization and Policy, National Association of State Colleges and Land-Grant Universities, November 1980), from U.S. Department of Agriculture, Graduates of Higher Education in the Food and Agricultural Sciences, USDA Miscellaneous Pub. No. 1385, by Kyle Jane Coulter, and Marge Stanton (Washington, DC: U.S. Government Printing Office, July 1980), pp. 1-11.

[4]National Association of State Colleges and Land-Grant Universities, Human Capital Shortages: A Threat to American Agriculture, (Resident Instruction Committee on Organization and Policy, National Association of State Colleges and Land-Grant Universities, 1983), pp. 3-5.

The USDA reported an expected shortfall of 8,000 graduates annually from 1983-2000. Thus, a thirteen percent difference between the 51,000 graduates supplied in the agricultural areas and the 59,000 graduates actually needed.[5] The USDA stated that the number of college-age students would decrease by twenty-five percent from 1984 to 1993, and had already dropped fifteen percent since 1979. The implications for the College of Agriculture and Natural Resources at Michigan State University were great.[6]

In an effort to reverse the trend towards lower enrollments, the College hired a Recruitment Coordinator to develop a recruitment plan and initiate its activities in April of 1984. Additional staff were hired at the clerical/technical level and graduate assistant level to assist in the implementation of the activities. Target audiences were selected and specific activities were designed around them. These activities, taken together, formed the recruitment plan.[7]

The plan followed Michigan State University's freshman recruitment plan, to increase the number of prospective students, increase the number of applicants, and to increase the number of matriculants at the

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[5]Ibid, pp. 12-14.

[6]College of Agriculture and Natural Resources, Michigan State University, "Recruitment Plan," comp. Eugene E. Trotter, (East Lansing, Michigan, College of Agriculture and Natural Resources, June 1984), p. 1.

[7]Ibid, pp. 1-3.

University.[8] The funding, staffing, and activities seemed to have a specific meaning and purpose, but yet, they lacked definition as to their relative successfulness with the target audience outlined in the recruitment plan.

The students' perception of a college or university could only be developed, or changed, by the presentation of additional information to him or her. It was vital that pertinent information come from a source with which a student had contact and was in a form with which the student felt comfortable. For varying groups of students with a variety of academic, ascribed, and social characteristics, the most important characteristics of a college, the best possible format of delivery, and the most valuable sources of information could have also varied. In order for the college recruitment effort to reach the goals of increasing the number of students making application to their programs and increasing the number of matriculants in their programs, they needed to relate relevant information, in an acceptable form, from a reliable source, at the appropriate time, to the target audiences.

B. Purposes

The purpose of the study was to measure the effectiveness of selected recruitment techniques on undergraduate students who enrolled in the College of Agriculture and Natural Resources at Michigan State University. A survey of the students entering into a four-year program

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[8]Office of Admissions and Scholarships, Michigan State University, "A Freshman Recruitment Plan for Michigan State University," comp. William H. Turner, (East Lansing, Michigan, Michigan State University, September 1983), p. 1.

as freshmen or as transfer students from other universities or colleges not part of Michigan State University during the Fall Term, 1984, was used in an attempt to determine which information was important for students to receive as they were making their decisions regarding college choice (Appendix A). The point in a student's academic career that he or she recalls having made the decision to attend Michigan State University and major in the College of Agriculture and Natural Resources was identified as a result of the data. Students' preference for specific recruitment activities and for sources providing information regarding college choice was analyzed from the data. The relationship of these preferences for timely information, format, and source to selected academic, ascribed, or socially related characteristics was determined from the data (Appendix B).

C. Importance

The industries of agriculture and the appropriate utilization of natural resources in the United States, taken together, form the basis of a large, and seemingly productive, safe, and efficient, food and fiber system. At least 22 million members of America's work force are involved with these combined industries, and the need for workers, trained to at least the baccalaureate degree level, has been well established, based on employment and manpower projections through the year 2000.[9] If the best possible future for these vital industries is sought, then an adequate supply of highly qualified graduates must

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[9]Ibid, Human Capital Shortages, pp. 12-14.

be maintained. Several basic issues of national concern, including employment, food supply, housing, water and land management, and balance of trade, are highly influenced by the competent operation and management of these industries.

The College of Agriculture and Natural Resources at Michigan State University has provided four-year programs for majors in the specific disciplines related to agricultural and natural resources careers. If potential students are to be guided to these occupations in the future, then properly conducted recruitment activities should be arranged on the basis of the student needs.

Many financial resources have been expended in order to develop the programs, facilities, and faculty of the College of Agriculture and Natural Resources. This has been done with the expectation that students would enroll for the majors offered by the College. Additional funds have been spent for recruiting students into these majors/programs and it seems likely that this spending will continue. In order to use the resources wisely, the recruitment staff must be fully prepared to make decisions on how specific groups of students can best be recruited. If differences were found in student preference for recruitment activities, based on academic, ascribed, or social characteristics, then the basis for recruiting students can move beyond crude cost-effectiveness and include tailor-made programs to recruit specific populations into the majors of the College of Agriculture and Natural Resources.

D. General Uses and Limitations

1. General Uses

This study would provide material from which suggestions could be made to the recruitment personnel in the College of Agriculture and Natural Resources at Michigan State University and at other agricultural/natural resources/life science colleges in the North Central Region, and potentially, across the nation. Several important factors related to the recruitment of college freshmen and transfer students into the programs which they were offering had been identified. It yielded a clearer picture of how academic, ascribed, and social characteristics affected the students' preference for the timing, format, and source of recruitment information. It related which information students perceived as most important to have as they were making college choices, and it provided opportunities for the College recruitment personnel to develop or change their recruiting strategies in order to attract more students to their colleges.

The recruitment and admissions personnel at the University level at Michigan State and at other universities which include colleges of agriculture/natural resources/life sciences could utilize the information to evaluate the effectiveness of their current recruitment and admissions programs and policies. A comparison of the current activities with the results of the study would confirm or deny the effectiveness of the University recruitment plan for the College of Agriculture and Natural Resources. This would provide the University an opportunity to alter their efforts, based on the results of study and the needs of the College.

Other universities and colleges in Michigan could find usefulness in the results of the study. They could be better prepared to recruit students into related fields, and would better present their programs or majors to specific populations to increase the participation of these groups in their colleges.

Additionally, counselors in the secondary school system could utilize the findings to plan more useful and meaningful college orientation activities for the population with which they find themselves working. Because the industries of agriculture and natural resources were so large and diverse in terms of land, capital, and especially labor-force utilization, the population from which potential college students in agricultural and natural resources majors were drawn, were equally as large and diverse. Secondary school personnel could provide a better opportunity for college and career orientation through the results of the study.

2. Limitations

This research, conducted at Michigan State University's College of Agriculture and Natural Resources, was limited by the philosophical and organizational structure of the College. The College had combined agricultural and natural resources educational efforts, because of a recognition of the interdependence and importance of the two major disciplines to the potential consumers of formal and non-formal educational activities conducted by the College.

The research was conducted, utilizing the freshmen and transfer students entering the College during the Fall Term 1984. The social,

academic, and economic influences that these students had experienced were unique to them. Their perceptions of the conditions surrounding the agribusiness and natural resources areas at that time were result of the influences they had felt.

The sample was limited in that it only represented students in the four-year programs at Michigan State University. The replication of the research at another location or at a later date might eliminate part of this limitation. The results from surveying students entering the two-year programs, or graduate programs in the college, might have been very different.

The sample did not take into account those students who started at Michigan State in a major or major preference which is not part of the College of Agriculture and Natural Resources. Also, it did not take into account those students, who after starting a major or major preference in the College, decided that a major outside agriculture and natural resources fit better into their career plans. It was limited, as a single evaluation of those students who had chosen a major in the College, as a starting point for their academic training at Michigan State University.

The survey was not limited to a sample of any special populations, such as minorities, the disadvantaged, or the handicapped, as a specific group. Instead, the survey focused on the analysis of the entire group and specific analysis of the academic, ascribed, and social factors that had influenced students to choose like or unlike responses. Special populations were only considered when a cross analysis of the responses was required.

The survey did not evaluate whether (a) the majors that were in the College, and therefore, the students within the majors, were there because it was the most appropriate place for them to be, or (b) if there were majors and students outside the College of Agriculture and Natural Resources who might have been more appropriately included and administered as part of the College. The study relied on the sound placement of specific majors within specific colleges, because those majors fit in as part of the many programs in Agriculture and Natural Resources at Michigan State University.

The survey was distributed and collected at the "Meet Your College" presentation for incoming freshmen and transfer students on September 19, 1984. Its results were limited to the responses supplied by the students who participated in the program, conducted by the Office of Academic and Student Affairs, on that day.

It should be recognized that the researcher had a background in education and was employed as a graduate assistant, working with recruitment activities, in the Office of Academic and Student Affairs in the College of Agriculture and Natural Resources at Michigan State University. The selection of questions for the survey, the composition of the hypotheses, the analysis of the data, and the recommendations made were certainly influenced by the background and development of the researcher.

E. Assumptions

1. The primary assumptions upon which the hypotheses were/are as follows:

a. Information regarding the College or University is needed by students when they are making their college selection.

b. Information regarding the College or University is desired by students from specific sources.

c. Information regarding the College and University is supplied to prospective students through recruitment activities conducted by the College or University.

d. Students make their decisions about College and University preference during some time period previous to their application for admission to the College or University.

F. Hypotheses

1. The following four hypotheses were developed for the study:

a. When a student makes his/her college selection, his/her preference for specific types of information will vary significantly among selected academic, ascribed, and social characteristics.

b. When a student is making his/her college selection, his/her preference for specific sources of information will vary significantly by selected academic, ascribed, and social characteristics.

c. When a student is making his/her college selection, his/her preference for specific recruitment activities will vary significantly by selected academic, ascribed, and social characteristics.

d. When a student is making his/her college selection, the time period during which the student is making his/her selection will

vary significantly by selected academic, ascribed, and social characteristics.

C. Definitions

1. Academic Characteristics -- These traits include the student's high school grade point average (GPA), the student's age at the beginning of post-secondary work at Michigan State University, the student's transfer or freshman status at the point of admission to the University, the size of the graduating class of the high school from which the student came, and whether the student was enrolled in vocational agriculture courses in the secondary school system.

2. Agriculture Majors -- These are majors within the broad range of the agricultural disciplines. These majors include the following undergraduate or baccalaureate degrees at Michigan State University: Agribusiness and Natural Resources Education, Agriculture and Natural Resources No-Preference, Agriculture and Natural Resources Communications, Agricultural Engineering, Agricultural Engineering Technology, Agricultural Biochemistry, Animal Science, Building Construction Management, Crop and Soil Sciences, Food Science and Human Nutrition, Food Systems Economics and Management, Horticulture, Packaging, and Public Affairs Management.

3. Ascribed Characteristics -- These traits include the student's gender and the student's ethnic background.

4. **College Selection** -- This is the act or process of deciding upon an institution at which to study at the post-secondary level. More specifically, the decision regarding a field of study, which places a student within a specific academic unit, potentially, within a larger institution.

5. **Information** -- Facts and figures or opinions regarding the details of a specific university, college or major. Examples may include enrollment data, admission standards, academic reputation, housing information, etc.

6. **Natural Resources Majors** -- These majors are within the broad range of natural resources disciplines. These majors include the following undergraduate or baccalaureate degrees at Michigan State University: Fisheries and Wildlife, Forestry, Natural Resources and Environmental Education, Park and Recreation Resources, and Resource Development.

7. **Recruitment Activities** -- The means or mode of transmitting information, regarding a university, college, or major program, to a potential student. Examples may include any function organized and conducted to raise the potential student's interest level, or to encourage the potential student to apply for admittance, or to encourage the potential student to attend a specific university, or college, or to pursue a specific major.

8. **Social Characteristics** -- These traits include the parental income, occupation and residence background of the student's parental family, the student's preference for an agriculture major or a natural resources major, and whether the student was a member of a 4-H Club during primary or secondary school.

9. **Sources** -- Refers to the forms of media and contacts that a potential student had or would have liked, in regard to receiving information regarding a university, college, or major program. Examples may include any formal or informal contact which raised the potential student's interest level, or which encouraged the potential student to attend a specific university or college, or to pursue a specific major.

10. **Time Period** -- The span of time, beginning at the point that a student starts to consider his/her college selection, and ending at the point when he/she arrives at a final decision regarding his/her college selection.

11. **Vary Significantly** -- Refers to the comparison of one opinion or preference against two or more variables, where the percentage of difference for one preference over the other is at least five percent.

CHAPTER II

REVIEW OF LITERATURE

A. Introduction

The review of literature included approximately one hundred citations. These citations fell into five categories. They dealt with the student's preference for specific information, sources of recruitment information, the format of recruitment activities in which the information was presented, the time table used to present information, and supply and demand data for college graduates of the agricultural and agriculturally related college programs.

The literature sources included many freshman and transfer entrance surveys and their results from colleges around the country, vocational and career choice guides, college and university marketing research projects and reports, college and university recruitment plans, supply and demand statistics and projections, and college and university enrollment reports. The formats for these publications included dissertations and thesis works, scholarly articles, federal reports, public and private university statistics, and books.

Recruitment of students to colleges of agriculture and natural resources became a big task within the post-secondary system over the last five years. Oedel and Zemsky (1983) stated that recruitment to post-secondary institutions was a "non-subject" as recently as 1978.[1] The need for this new effort and expense in colleges of agriculture/natural resources/life sciences was made apparent by the

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[1]Robert Zemsky and Penny Oedel, The Structure of College Choice (1983), p. 3.

manpower studies completed by the USDA.[2] Oedel and Zemsky stressed that the situation had become critical because the pool of potential students had decreased in size and the percent of students attending undergraduate programs had also decreased.[3] Murphy and McGarrity (1978) suggested that marketing a college or university, through planned recruitment activities was the answer to reversing the trend of decreasing enrollments.[4]

B. Information

Oedel and Zemsky said that providing information is a two-way street. They said that when a student submits test scores, he or she is signaling a college or university of his or her potential interest.[5] The educational institution then has the "ball" in its court and needs to find a good way to deliver it back to the student. Halstead (1977) reported that after four years of monitoring by the College Board (CEEB) the results prove that universities and colleges have not provided adequate information.[6] Halstead said that a recently implemented

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[2]Ibid, Human Capital Shortages, p. 13.

[3]Ibid, Zemsky and Oedel, The Structure of College Choice (1983), p. 32.

[4]Patrick E. Murphy and Richard A. McGarrity, "Marketing Universities: A Survey of Student Recruiting Activities," College and University (Spring 1978), p. 257.

[5]Ibid, Zemsky and Oedel, The Structure of College Choice (1983), p. 54.

[6]Carol P. Halstead, "Prospective Students Want, Need Better Information," Council for Advancement and Support of Education/Great Lakes District 5 (1978), p. 1.

Communications Awards Program recognizes those institutions making an outstanding effort in providing information to prospective students.[7]

The most successful recruitment programs have included several key concepts. Students have responded that the information provided needs to be honest, objective, and personal. They also stressed that their most important informational needs included academics, college costs and placement rates.[8] Halstead reported that The National Center for Higher Education Management Systems conducted a multi-state survey of college students and that these students ranked the top ten items of information they needed and used in selecting a college. They supported Halstead's beliefs. Students ranked the transferability of credits, requirements for graduation, the way in which courses are taught, and information about the faculty as part of the academic information they required in the top ten. In considering college costs, they ranked financial aid as the sixth most influential piece of information they needed. In reference to placement, the students said that the availability of student services was the seventh most influential factor in their college choice.[9]

Matross and Roesler (1983) completed a study at the University of Minnesota, College of Liberal Arts, that showed students' third most desired type of information was the location of the college in respect to

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[7]Ibid, p. 1.

[8]Ibid, p. 1.

[9]Ibid, p. 2.

their home residence.[10] Leong and Sedlacek (1981) found that 27 percent of the entering freshman class at the University of Maryland[11] considered college location to be the most important information to prospective students making their college selection. Nelson and Poremba (1980) found that college location was ranked second most important by students 18 to 24 years old, but as the most important factor for students 25 years old and older.[12] These results might have indicated that for older students who were working or raising a family simultaneously with their educational pursuits, the location of the college or university was more important than for younger students.

C. Sources

A marketing survey completed at Western Michigan University in 1986 disclosed that agriculture students most often heard about the agriculture program through the college bulletin and from friends. When the students were asked how they further would promote the agriculture program, they suggested that currently enrolled students and alumni would

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[10]Ron Matros and Jon Roesler, Transferring to the University of Minnesota: A Survey of Admitted CLA Transfer Students (OSA Research Bulletin, [April 4, 1983]), p. 16.

[11]Frederick T. L. Leong and William E. Sedlacek, A Profile of the Incoming Freshmen at the University of Maryland, College Park: MD, 1981 (Research Report #13-81, Office of the Vice Chancellor for Student Affairs, [1981]), p. 4.

[12]Bob Nelson and Greg Poremba, Reasons for Selecting the University of North Dakota by New Freshmen and College Transfer Students 1979-80 (University of North Dakota, Division of Student Affairs, Grand Forks, [1980]), p. 22.

be effective in promoting the agriculture program on campus, and in area high schools.[13]

An Executive Summary of Factors Influencing School Choice, prepared for Michigan State University in 1982, revealed that contact with a student was the least influential of seven sources and influences on students not enrolling at the University. In another ranking in the same survey, the influence of parents and friends, ranked tenth and eleventh out of twelve sources of influence on their decisions to enroll at Michigan State University. The reputation of the faculty and college brochures were both ranked above parental and peer influence.[14]

Leon (1983) found that among hispanic freshmen students at California State University - Fresno, the input of parents was the single most important source of information,[15] and Fuller and others (1979) found that for college choice among black freshmen students at North Carolina Central University, 48 percent ranked parents as the most important source of information.[16] In contrast, Overall's (1981) work with primarily white freshman students at the University of Southern

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[13]Max E. Benne, "Marketing Survey for Ag Students At Western Michigan University," National Association of College Teachers of Agriculture Journal (September 1986) : 27.

[14]Executive Summary - Factors Influencing School Choice: Survey of Students Admitted To Michigan State University Fall 1982 p. 3.

[15]David Jess Leon, Choosing a College: Influences on Chicano Freshmen at California State University, Fresno ([March 1984]), pp. 7-9.

[16]Vicki S. Fuller, Linda K. Pratt, Norman P. Uhl, Profile of North Carolina Central University Freshmen, Fall, 1981 (Office of the Associate Vice Chancellor for Academic Affairs for Research, Evaluation, and Planning [September 1979]) p. 2.

California, found parental influence to be ranked as one of the least important sources of information.[17] These results might have indicated that students from various ethnic backgrounds may have differed in the relative importance they place on their sources of college information.

In a survey of prospective college students conducted by the Council for the Advancement and Support of Education (CASE) it was noted that students are very interested in what other students says about the college or university that they are interested in attending.[18] A brochure developed and distributed about the C. W. Post Center, part of Long Island University, entitled "What Students Say About C. W. Post" was credited by prospective students as being one of the most influential factors in their decision making process. Prospective students wanted to know what current students had to say about the program.[19]

D. Time Period

Zemsky and Oedel suggested that many students decided whether to start a college preparatory curriculum, and whether to attend college, sometime during their first year of high school.[20]

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[17]J. U. Overall, First-Time International and Domestic Freshmen: Enrollment Trends and Characteristics (Office of Institutional Studies, University of Southern California, Los Angeles [March 1981]), pp. 18-19.

[18]Ibid, Halstead, "Prospective Students Want, Need Better Information," p. 2.

[19]Ibid, p. 2.

[20]Ibid, Zemsky and Oedel, The Structure of College Choice (1983), p. 47.

In making the decision to enroll in a specific college, Brown (1970) wrote that nearly half of the transfer students in his sample decided to enroll in the college while still enrolled in high school,[21] while some change-of-major students did not decide to enroll in the college until their second or third year of post-secondary education.[22]

Brown reasoned for these findings by relating Ginzberg's theory of occupational choice, noting that the process in completed as a series of largely irreversible decisions, in which each individual compromises interests, capacities, abilities, and values, to make the eventual occupational choice. Brown continued by relating Ginzberg's approach to occupational choice as a series of three time frames, including fantasy choice, tentative choice, and realistic choice. Fantasy choice begins with pre-adolesence and realistic choice ends with early adulthood.[23]

In moving from the general decisions about whether to pursue a college preparatory curriculum, or to attend a college, to the more specific decisions about individual majors or degree programs, the literature demonstrated that it may take students six or seven years to move through the college choice process.

Gilmour and others (1981) evaluated this process at Pennsylvania State University by interviewing high school seniors and college freshmen. They identified a six stage process, which included the

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[21]Norman Allen Brown, Characteristics and Influence Patterns of Students Who Enroll in the College of Agriculture and Natural Resources After First Enrolling in Another College (1970), p. 69.

[22]Ibid, p. 78.

[23]Ibid, p. 15-19.

decision to attend college, the development of a list of prospective colleges, the decision to submit applications to those colleges, the application process, the receipt of acceptance to colleges, and the final college choice.[24] This analysis of the college choice process indicated that it is a part of the more comprehensive occupational choice process. The implications for a long time span for recruitment are tremendous.

E. Recruitment Activities/Format

Student preference for specific recruiting techniques was surveyed by the College of Agriculture and Natural Resources at Michigan State University during fall term 1983. A total of 101 students responded. They selected campus-based activities, including visiting a friend or family member, attending an athletic event, or other University sponsored events as the most frequent sources of contact.[25] This survey was used, in combination with the September, 1983, Freshman Recruitment Plan for Michigan State University, in developing the June, 1984, Recruitment Plan for the College of Agriculture and Natural Resources. This College plan was philosophically based on increasing the pool of high school students interested in careers in agriculture and natural resources, therefore increasing the number of freshman and transfer students making application to the College of Agriculture and Natural Resources, with a

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[24]Joseph E. Gilmour Jr., Louis M. Sprio, Ira J. Dolich, How High School Students Select a College (Penn State University, [1981]), pp. 8-9.

[25]Survey Foundation, Office of Academic and Student Affairs, College of Agriculture and Natural Resources, Michigan State University, (Summer 1983).

final goal of increasing the number of matriculants in the College.[26] In fact, it was unclear which activities were aimed at increasing students' awareness of and interest in careers in agriculture and natural resources, and which activities were designed to encourage prospective students to make application for admission to degree programs in the College. Neither the College of Agriculture and Natural Resources Recruitment Plan or the Michigan State University Freshman Recruitment Plan included any objectives for total enrollment levels in specific degree programs or colleges, or within the University as a whole.

Leon found that a special program operated by California State University - Fresno, the Educational Opportunity Program (EOP), appeared to be the third most important overall factor students used in making their college choice and the highest ranking recruitment activity conducted by the University.[27] Additionally, Leon found that recruiting students through activities which provided information to prospective students' parents was the second most important recruitment activity conducted.[28]

In a study which measured the effectiveness of recruitment activities directed at prospective students and their parents, Litten (1981) found that the most effective recruitment activities combined the highest

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[26]Ibid, College of Agriculture and Natural Resources, Michigan State Univeristy, "Recruitment Plan," p. 1.

[27]Ibid, Leon, Choosing a College: Influences on Chicano Freshmen at California State University, Fresno, pp. 10-11.

[28]Ibid, pp. 12-13.

priority information from the most reliable sources at the appropriate time in the students' college choice process. Litten demonstrated that students and their parents wanted to learn about degree programs through college catalogs, but wanted to receive financial and career information through admissions personnel, and informed opinions about faculty quality and social character from current students or alumni.[29]

F. Supply and Demand

Dr. James Jay, Assistant Director of the Office of Academic and Student Affairs for the College of Agriculture and Natural Resources at Michigan State University, documented a decrease in enrollment in the undergraduate programs in the college of ANR of 6.1 percent from the fall of 1982 to the fall of 1983. This reduced the number of students from 2,695 to 2,307 and ranked Michigan State University as the fourth largest college of its type in the Midwest, with the fifth smallest decrease amongst thirteen colleges.[30]

Dr. Allan D. Goecker, Assistant Dean in the College of Agriculture at Purdue University, served as Chairman of the Agriculture and Natural Resources Resident Instruction Committee on Organization and Policy for the National Association of State Universities and Land-Grant Colleges. His committee reported that in general, the demand for individuals

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[29]Larry H. Litten, Messages and Media: Toward Enhanced Performance in Communicating with Parents of Prospective Students (Consortium on Financing Higher Education, [1981]), pp. 4-10.

[30]Ibid, Jay, memo, July 1984.

available with training at the associate or baccalaureate degree level will exceed the supply by fifteen percent in the years 1985 to 2000.[31]

Goecker and his committee were working from a United States Department of Agriculture (USDA) study completed in July, 1980, which highlighted a shortfall of college graduates at the bachelor degree level in six of eight occupational clusters, including scientific and professional specialists, manufacturing and processing scientists and engineers, sales and service representatives and purchasing agents, administrators/managers/financial advisors, agricultural production and management specialists, and other agricultural specialists. The study showed an over supply of educators and media specialists in agriculture.[32]

G. Summary

The preference for specific information, from selected sources, in specific formats, provided during the period of vocational and college choice, have been key issues surrounding the development of recruitment activities and plans. The goals of recruitment have been linked to increasing the awareness of students regarding the majors and programs available to them, increasing the number of applicants for admission to these majors and programs, and finally, increasing the number of students pursuing degrees in these areas. Oedel and Zemsky suggested the

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[31]Ibid, Goecker, Supply and Demand: College Graduates in Food and Agricultural Sciences, p. 3.

[32]Ibid, Goecker, Supply and Demand: College Graduates in the Food and Agricultural Sciences, p. 5.

development of a "tinker-toy" model for relationships between universities and colleges and recruitment activities and programs within those universities.[33] The graphic model they suggested could provide a basic strategy and plan for recruiting students.

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[33]Ibid, Zemsky and Oedel, The Structure of College Choice (1983), p. 106.

CHAPTER III

DESIGN AND PROCEDURES

A. Experimental Design

The design of this study consisted of an inventory of academic, ascribed and social characteristics, a report of influential factors and college choice decisions and an evaluation of the recruitment activities conducted or proposed by college or university recruitment personnel. The survey was completed only by those students who had selected a major or major preference in the College of Agriculture and Natural Resources at Michigan State University, at the time that they began their academic pursuits at the University.

The inventory provided a basis for comparison between sub-groups, based on the following academic characteristics:

1. The students' high school grade point average (GPA).
2. The students' age at the beginning post-secondary effort at Michigan State University.
3. The students' transfer or freshman status.
4. The size of the students' high school graduating class.
5. The students' enrollment in vocational agriculture courses while in high school.

The inventory also provided a basis for comparison between sub-groups, based on the following ascribed characteristics:

1. The students' gender.
2. The students' ethnic background.

Additionally, the inventory provided a basis for comparison between sub-groups, based on the following social characteristics:

1. The students' parental family income level.
2. The students' parental occupational status.
3. The students' parental residency background, in miles from Michigan State University.
4. The students' parental residency background, as rural, village, small town, large town, small city or large city.
5. The students' selection of a natural resources major or an agriculture major.
6. The students' participation in 4-H youth programs during primary or secondary school.

The survey was not intended to evaluate those students who selected the College of Agriculture and Natural Resources at Michigan State University after first selecting another college at the University. Neither, did it provide information from students who might or could have enrolled in the College of Agriculture and Natural Resources at Michigan State University, but did not.

B. Population and Sampling

The population included all freshman students and all transfer students from colleges outside Michigan State University, who first enrolled in undergraduate programs in the College of Agriculture and Natural Resources at the University during Fall Term, 1984. A total of 108 freshmen and 171 transfer students made up this population. The total population of 279 students would constitute the potential sample.

The inventory was administered at the College of Agriculture and Natural Resources "Welcome Week" presentation, annually hosted as the "Meet Your College" program in the Auditorium of the Natural Resources Building on the campus of Michigan State University.

Table 1 highlights the total population and percentage of response, based on the completion of the surveys.

TABLE 1. - The number of students surveyed, and the percentage and number of respondents to the survey.

	Number Enrolled	Number of Respondents	% Response
Freshman	108	60	55.6%
Transfer	171	60	35.1%
Total	279	120	43.0%

C. Assumptions on Which the Questionnaire was Based

1. Students had the ability to recall, accurately, their feelings, opinions, and decisions, regarding college selection.

2. The information that students provided was meaningful when evaluating recruitment activities and would be useful in designing or redesigning recruitment programs and plans.

3. Students who selected the College of Agriculture and Natural Resources as freshmen or as transfer students from colleges outside Michigan State University may have made their college choice decisions differently than those students who selected the College of Agriculture

and Natural Resources after previous enrollment in another college at the University.

4. Students differed in their pattern of college choice decisions by selected academic, ascribed and/or social characteristics.

5. There continued to be more positions available in the agriculture and agriculturally related fields than there were professionals qualified to fill those positions.[1]

6. More students should have enrolled in the College of Agriculture and Natural Resources at Michigan State University.[2]

7. As a clearer understanding of the college selection procedure was developed, including the need for specific information, from selected sources, in selected formats and during selected time periods, recruitment activities and efforts could be directed more specifically to assist prospective students in making college choice decisions.

8. There had been and continued to be additional students who would make the decision to enroll in the College of Agriculture and Natural Resources, if they had information regarding the programs and majors available in the college.

9. Those students who enrolled in the College of Agriculture and Natural Resources after enrolling in another college, outside Michigan State University, might have made the decision to enroll earlier, if they

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[1]Ibid, Human Capital Shortages, p. 12-13.

[2]Ibid, College of Agriculture and Natural Resources, Michigan State University, "Recruitment Plan," p. 1.

had received information regarding the programs and majors available in the college.

10. Providing information regarding the College of Agriculture and Natural Resources, to prospective students, had been and continued to be one of the tasks of the college.[3]

11. When a student selectd a professional career area, the choice of college major or program, had to closely follow that vocational choice, if the college preparation was to be a prerequisite for the selected vocation.

12. When students enrolled in the College of Agriculture and Natural Resources, they considered the academic training they received to be part of their professional development for a career choice in the agriculture and natural resources occupation.

D. Instrumentation

The survey instrument was developed on the basis of a preproposal and was submitted to members of the thesis committee, as well as Dr. Taylor Johnston, Associate Dean of Academic and Student Affairs; Dr. Eugene Trotter, Recruitment Coordinator for the College of Agriculture and Natural Resources; and Dr. Frank Bobbitt, Professor in the Department of Agricultural and Extension Education. Each of these individuals provided excellent feedback for revision of the inventory. Ms. Alice Kalush, Programmer Analyst in Applications Programming of the Michigan State University Computer Laboratory suggested many technical and mechanical revisions which were incorporated.

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[3]Ibid, College of Agriculture and Natural Resources, Michigan State University, "Recruitment Plan," p. 1.

The survey categories were designed to parallel categories established on major census and inventory questionnaires. For example, the ethnic background categories (question #5), grade point breakdowns (question #11), and parental opinion categories (question #14) were established after reviewing a Michigan State University inventory instrument administered during academic orientation programs.[4] Income level breakdowns (question #32), and occupational classifications (question #15), were developed from U.S. Census categories.[5] Extracurricular activity categories were adapted from the American College Testing inventory.[6] Questions regarding the students' perceived need for information (question #30), preference for specific recruiting techniques (questions #24, #25, and #29), and timing for college choice decisions (questions #22 and #23) were developed from an inventory designed by Norman A. Brown in his 1970 doctoral dissertation.[7]

E. Data Analysis

Ms. Kalush, of the Michigan State University Computer Laboratory, wrote the program to analyze the survey responses after they were key

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[4]Admissions Office, Michigan State University, "Survey of Admitted Students," p. 1-3.

[5]"1980 Census Summary for Michigan," Bureau of the Census, Washington, DC, p. 4-6.

[6]Ibid, Astin, "The American Freshman: National Norms for Fall 1983." p. 13.

[7]Ibid, Brown, Characteristics and Influence Patterns of Students Who Enroll in the College of Agriculture and Natural Resources After First Enrolling in Another College, Appendix A and Appendix B.

punched.[8] The surveys were double punched to insure accuracy of the data. Item analysis provided a basis for evaluation of the mean, median and mode. Dr. O. Don Meaders assisted the researcher in selecting all appropriate cross-references. These were tabulated to evaluate the degree to which the subgroups, as they were broken down by their respective academic, ascribed and social characteristics, varied from the overall response in respect to their recruitment preference.

Although all of the raw data was analyzed and twelve academic, ascribed, and social characteristics had been identified for potential significance, the researcher selected three characteristics on which to present the findings and make recommendations. The comparison of freshman and transfer students was selected as the representative academic characteristic, while gender was selected as the representative ascribed characteristic, and the rural, urban, or suburban residency background of the students' parental family was selected as the representative social characteristic. These factors were selected because the sample provided a significant distribution of responses in these areas.

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[8]Alice Kalush, Programmer Analyst, Applications Programming, Michigan State University Computer Laboratory.

CHAPTER IV

FINDINGS

A. Introduction

Presentation of the data begins with a summary of the total sample of students who started their undergraduate studies in Michigan State University's College of Agriculture and Natural Resources during Fall Term 1984. The various academic, ascribed, and social characteristics of the sample group are followed by a presentation of their preference for specific information and their preference of sources of information about Michigan State University and the College of Agriculture and Natural Resources. Findings are also presented to demonstrate the students' preference for specific recruitment techniques and the time period during which they made decisions to apply for admission at Michigan State University, and when they decided on their specific major in the College of Agriculture and Natural Resources. This view of the total sample is followed by the presentation of findings which compared students' preference for information, sources of information, recruitment techniques, and timing of college choice decisions, by each of one academic, ascribed, and social characteristic.

The respondents completed the survey instrument during the "Meet Your College" program hosted by the College of Agriculture and Natural Resources as a part of the "Welcome Week" activities sponsored during the week of Fall Term, 1984. Not all respondents answered every question, so in some cases, the total of the responses measuring one characteristic is less than the 120 questionnaire completers.

B. Characteristics of the Sample Population

The summary of survey data showed that 69 of the respondents were male, and 51 were female. One hundred and fourteen individuals reported their marital status as single, while three indicated that they were currently married and two marked that they were divorced. Six of the respondents reported their age as 17 or under, while 54 reported being 18 years old, seven reported being 19 years old, 27 reported being 20 years old, 21 reported being 21 to 24 years old, and five reported being 25 or older.

In providing ethnic background, 118 indicated being white/caucasian, while one student reported being hispanic, and one reported being asian/pacific islander. The data showed that 113 of the respondents were Michigan residents, while seven were from other states in the United States. In consideration of the students' home residency, the data showed that three of the students lived within 10 miles of the campus, five students lived 10 to 24 miles from campus, 10 students lived 25 to 49 miles from campus, 54 students lived 50 to 99 miles from campus, 37 students lived 100 to 249 miles from campus, and 11 lived 250 or more miles from campus.

In further reporting of their residency backgrounds, 48 designated that they came from a farm or rural residence, while seven reported coming from a village. Twenty indicated that they came from a small town, 24 indicated that they came from a small city, and 20 indicated that they came from a large city.

The data showed that 60 of the student respondents were freshmen and that 60 were transfer students. Three of the students transferred

from a community college with 24 or fewer credits, while 35 students transferred from a community college with more than 24 credits. Twenty-two of the students transferred from another four-year institution, but none of the students reported transferring from another college within Michigan State University.

In designating major preference, 26 students reported Animal Science as their choice, while 22 reported Fisheries and Wildlife, 13 reported Horticulture, nine reported Forestry, eight reported Packaging, seven reported Food Systems Economics and Management, five reported Agricultural Communications, four reported Agribusiness and Natural Resources Education, and two reported Natural Resources and Environmental Education. Seven of the remaining majors were each reported by only one respondent and 13 individuals reported Agriculture and Natural Resources No-Preference. No students reported a major preference in Agricultural Engineering or Food Science/Human Nutrition.

When reporting secondary education background, 104 students reported that they attended a public school, while 14 reported attending a private denominational school, and two reported attending a private nondenominational school. Students were also asked to indicate the size of their high school graduating class. Twenty reported graduating in a class less than 100, 34 reported graduating in a class of 100 to 199, 24 reported graduating in a class of 200 to 299, eight reported graduating in a class of 300 to 399, 20 reported graduating in a class of 400 to 499, and 13 reported graduating in a class of 500 or more.

In considering student achievement at the secondary level, the data showed that 34 students graduated with an overall grade point average (GPA) of 3.50 to 4.00 (on a 4.00-0.00 scale), 56 students graduated with a GPA of 3.00 to 3.49, 28 graduated with a GPA of 2.50 to 2.99, and only one student graduated with a GPA below 2.50. This data can be contrasted with reported high school academic rank. Sixty students reported graduating in the top 20 percent of their class, 32 reported graduating in the second 20 percent, and 22 reported graduating in the middle 20 percent. Only one student reported graduating in each the fourth and bottom 20 percent categories.

Because of its potential utilization as one of the academic characteristics in the study, students were asked to report their enrollment in vocational agriculture courses in high school or in an area vocational center. Thirty-two students reported that they had been enrolled.

Student respondents were asked to indicate their participation in extracurricular activities. Sixty-eight students reported participation in athletic programs, while 42 reported participation in vocal or instrumental music programs. Thirty-one students reported 4-H membership, 26 students reported involvement in student government, 24 students reported participation in drama/theatre, 20 reported responsibilities with the school newspaper/yearbook, and nine students reported debate/speech program involvement. Although membership in the FFA is actually an intracurricular activity, and therefore does not fit neatly into this description of student extracurricular participation,

23 students reported enrollment in the FFA organization. Twenty-nine students reported other extracurricular activities, not part of the highlighted response categories.

In moving to a description of their parents' occupations, 29 students indicated that their father was a skilled or unskilled worker, 23 indicated that he was a farmer or forester, 20 indicated that he was a businessman, nine indicated that he was an engineer, seven indicated that he was a federal, state, or local municipal worker, five indicated that he was a teacher or school administrator, four indicated that he was a doctor or health worker, three indicated that he was a clerical worker, and 18 checked "Other." Twenty-six students indicated that their mothers' occupation was homemaker, 16 indicated that she was a doctor or health worker, 13 indicated that she was a teacher or school administrator, 10 indicated that she was a businesswoman, eight indicated that she was a clerical worker, eight indicated that she was a skilled or unskilled worker, and seven indicated that she was unemployed. Five indicated that she was a federal, state, or municipal worker, five indicated that she was a farmer or forester, one indicated that she was a member of the clergy or a religious worker, one indicated that she was a social worker, and 15 checked "Other."

Students were also asked to report the total taxable income level of their parental family. Three reported it to be $5,999 or less, two reported it to be $6,000 to $9,999, nine reported it to be $10,000 to $14,999, 10 reported it to be $15,000 to $19,999, nine reported it to be $20,000 to $24,999, 11 reported it to be $25,000 to $29,999, 20

reported it to be $30,000 to $39,999, 16 reported it to be $40,000 to $49,999, 14 reported it to be $50,000 to $99,999, and four reported it to be $100,000 or more.

Student respondents were asked whether they had considered other two- or four-year institutions for their post-secondary studies. Seventy-two responded that they had, while 41 reported that they had not.

They were also asked to report whether they had received financial aid in this first year of their enrollment at Michigan State University. Forty-nine responded that they received aid, while 67 responded that they did not.

Students were asked to indicate if they came to the university with a specific job title or goal in mind for themselves upon completion of their studies at Michigan State University. The data showed that 59 had specific job titles or goals, and 56 did not.

Student respondents were also asked to relate their college selection process, including the sources and types of information which they found to be valuable, the recruitment activities which they found helpful, and the timing of their college choice decisions. As a basis for understanding more about the college selection responses of the sample population, the respondents were also asked to report their previous exposure to agriculture, agribusiness, and natural resources. Seventy-one students reported that they had visited nature areas or forests, 38 had visited farms, and 19 had visited an agribusiness. Fifty-seven reported work experience on a farm, 16 reported work

experience in an agribusiness, and 11 reported work experience at a nature area or forest. Forty-two reported living on a farm. This figure can be compared to the earlier reported figure that showed only 23 students considered their fathers' occupation as a farmer or forester, and only five reported their mothers' occupation as a farmer or forester. Twenty respondents reported "Other" exposure to agriculture, agribusiness, or natural resources. Five students reported that they had no exposure in these areas.

Students were asked to indicate the source from which they first heard about the College of Agriculture and Natural resources at Michigan State University. Twenty-three reported parents, 12 reported friends, 10 reported a high school teacher, eight reported a brother or sister, eight reported a College publication, eight reported a University admissions counselor, seven reported a high school counselor, six reported a College of Agriculture and Natural Resources student, six reported a College of Agriculture and Natural Resources alumni, and five reported a letter from the College. Three or fewer students reported a television or radio advertisement, newspaper or magazine, college night presentation, College faculty or staff, or College recruitment personnel. None reported a College visit to their high school as the source from which they first heard about the College. Nine students reported "Other" sources.

In moving to the sources of information which were most influential in their decision to attend the College of Agriculture and Natural resources, 26 students reported their parents had been the most

important source of information, while 12 reported that this source had been a College faculty or staff member, nine reported a College publication, six reported a high school counselor, six reported a high school teacher, five reported a College of Agriculture and Natural Resources alumni, four reported a brother or sister, and four reported a University admissions counselor. Three or less reported friends, television or radio, newspapers or magazines, College recruitment personnel, College visit to their high school, and College mailings. None reported a college night presentation as the most influential source of information in their college selection process. Twenty-five reported "Other" sources.

Respondents were asked to consider 23 possible contacts which they might have had with Michigan State University and the College of Agriculture and Natural Resources as "helpful" or "not helpful" in their decision to enroll at the University. Seventy-nine students reported talking with Michigan State University students, and 76, or 96 percent rated the contact as helpful. Seventy-seven students reported that they had received a letter from the University, and 64, or 83 percent rated it as helpful. Seventy-three students reported that they had talked with University alumni, and 71, or 97 percent rated the contact as helpful. Seventy-three students had received University publications, and 67, or 92 percent rated them as helpful. Sixty-nine students talked with high school counselors, but only 48, or 70 percent rated that contact as helpful.

Sixty-three students received a letter from the College of Agriculture and Natural Resources, and 55, or 87 percent found the

letter helpful. Sixty-one students reported that they had talked with a high school teacher, but only 39, or 64 percent found the teachers to be a helpful contact. Fifty-nine students met with faculty or staff members from the University, and 56, or 95 percent found the contact to be helpful. Fifty-four students reported meeting with a University admissions counselor, and 49, or 91 percent found it to be helpful. Fifty-two students had read an article regarding the College, and 46, or 88 percent found the article to be helpful.

Forty-nine students reported visiting a friend on campus, and 46, or 94 percent found the visit to be helpful. Thirty-nine students reported attending a University athletic event, and only 28, or 72 percent rated the experience as helpful in their decision to enroll. Thirty-four students reported visiting a family member on the campus, and 30, or 88 percent found it to be helpful. Twenty-five students saw a College booth or display, and 21, or 84 percent found it to be helpful. Twenty-four students had participated in a University open house, and 19, or 79 percent found it to be helpful. Twenty-two students reported attending an FFA activity on the campus, and 20, or 91 percent found it to be a helpful experience in their decision to enroll. Twenty-two students had attended a 4-H activity on campus, and 20, or 91 percent found it to be helpful.

Twenty-two students had seen a television advertisement or article, and 17, or 77 percent found it to be helpful. Twenty students had participated at a career day/night program at their high school or vocational center, and 15, or 75 percent found it to be helpful.

Seventeen students received a phone call from College recruitment personnel, but only 11, or 65 percent found this contact to be helpful. Sixteen students saw a poster in school, but only seven, or 44 percent found the posters to be helpful. Fourteen students heard a radio advertisement or story, but only six, or 43 percent found the contact to be helpful. Fourteen students noted "Other" contact. The students reported all of these other contacts to be helpful in their decision to enroll in the University.

The students were also asked to designate which contacts they believed they would have found helpful, if they were remaking their decision to enroll at Michigan State University in the College of Agriculture and Natural Resources. Ninety-nine indicated that a visit to campus would have been helpful, and 80 would like to have talked with University students, while 65 indicated that a letter from the College would have been helpful, and 64 would have found meeting with a University faculty or staff member helpful. Sixty-two would have found talking with Michigan State University alumni helpful in making their college choice.

Fifty-seven indicated that they would like to have read an article about the College, and 56 indicated that they would have found a letter from the University helpful. Fifty would like to have met with a University admissions counselor, and 50 would have liked to received a phone call from a College recruitment staff member. Forty-six would have found participation in a University open house helpful, 45 would like to have talked with their high school counselor, and 44 would have

liked to receive one or more publications from the University. Twenty-eight would have liked to attend an athletic event on the campus. Twenty-eight also would liked to have participated in a career day program while in high school, 26 would have found a college booth or display helpful, and 24 would have found talking with one or more of their high school teachers helpful. Twelve or fewer students designated that they would have found television, radio, newspaper or magazine advertisements or articles, posters in school, or "Other" sources helpful in making their college choice decisions.

A comparison of these responses with the responses rating the items which students had found helpful or not helpful in making their original enrollment decisions, showed that 94 percent of those who had visited a friend on campus, 88 percent of those who had visited a relative on campus and 91 percent of those who had been on campus for an FFA or 4-H activity, found their visit to be helpful, while 99 students indicated that if they were remaking their decision to enroll, they would still consider a visit to campus helpful. Ninety-six percent of the 79 students who had talked with University students prior to their decision to enroll had found it helpful, and 80 students indicated again that talking with University students would have been helpful in remaking their college enrollment decision.

Fifty-nine students had met with Michigan State University faculty or staff members prior to their enrollment, and 95 percent found it to be helpful. Sixty-four students indicated that they would like to visit with faculty or staff, if they were remaking their college choice

decision. Interestingly, only 17 students reported receiving a phone call from the College prior to enrollment, and only 65 percent had indicated that it was helpful, but 50 students indicated that they would find a phone call helpful in remaking their college choice decision.

Seventy-three students reported talking with University alumni prior to their decision to enroll, and 97 percent noted that this was helpful in their college enrollment decision, while 62 students reported the same alumni contact preference when challenged with remaking their college enrollment decision. Similar positive correlations existed in the students' response comparison between the contacts they found helpful, and those which they would have found helpful when challenged to remake their college enrollment decisions. Contacts among these very positive correlations included letters and publications from the University and College, meeting with a University admissions counselor, participation in a University open house, participation in a career day/night program, and viewing a College booth or display. In reporting contact with high school counselors and teachers, less positive correlations existed between students original preference and their perceived preference in remaking their college choice decisions.

In a separate question, students were asked to rate their parents' feelings about the importance of post-secondary education. Eighty-one students responded that their parents believe it is "very important," 36 indicated that their parents believe it is "important" and two

students related that their parents were "indifferent" about its importance. No students responded that their parents were opposed to post-secondary education.

In reporting the kind of information which they find important, the respondents rated 29 pieces of information as "positive," "negative," or "not applicable," to their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University. One hundred and twelve students rated the quality of academic programs as a positive influence, and no students rated this as a negative influence, while one student rated it as not applicable. One hundred and six students rated the academic reputation as a positive influence, two students rated it as a negative influence, and three students rated it as not applicable. One hundred and three students rated the agriculture and natural resources reputation as a positive influence on their decision to enroll, and no students indicated it was a negative influence, while 11 indicated that it was not applicable to their decision to enroll.

Ninety-four students indicated that the atmosphere/appearance of the campus was a positive influence, while two rated it as a negative influence, and 13 indicated that it was not applicable to their enrollment decision. Eighty-two students indicated that the quality of the faculty was a positive influence on their decision to enroll, while only one student indicated that it was a negative factor, and 25 indicated that it was not applicable to their decision. Sixty-four students indicated that the University's distance from their home was a

positive influence, while 17 indicated that it was a negative influence, and 30 reported that it was not applicable in their decision to enroll.

Seventy-nine students indicated that the diversity of academic programs was a positive influence, and one student noted that it was a negative influence, while 24 students indicated that it was not applicable to their decision to enroll. Seventy-nine students also indicated that they were influenced positively by the teaching reputation of the University, while no students were negatively influenced by this factor, and 25 students related that the teaching reputation was not applicable to their decision to enroll.

Sixty-six students indicated that the location of the University was a positive influence on their decision to enroll, while 12 students indicated that it was a negative influence, and 26 students reported that it was not applicable in their decision to enroll. Thirty-nine students indicated that the size of the campus was a positive influence on their decision to enroll, while 33 students related that it was a negative influence, and 35 students related that it was not applicable in the decision to enroll.

Twenty-seven students reported that the cost of tuition and housing was a positive influence on their decision to enroll, while 45 students related that it was a negative influence, and 35 indicated that this factor was not applicable to their decision to enroll. Sixty-five students indicated that the placement services and job search assistance was a positive influence on their decision to enroll, while

six students indicated that it was a negative influence, and 37 students related that it was not applicable to their enrollment decision. Sixty-six students indicated that the social atmosphere of the University was a positive influence on their decision to enroll, while four indicated it was a negative influence, and 35 reported that it was not applicable.

The reputation of the faculty and staff was noted by 68 students as a positive influence, while only one student noted it as a negative influence, and 39 students responded that it was not applicable in their decision to enroll. Sixty-three students indicated that the research reputation of the University was a positive influence on their decision to enroll, while three students indicated that it was a negative influence, and 38 related that it was not applicable to their enrollment decision. Thirty-one students responded that the large student population was a positive influence, while 34 indicated that it was a negative influence, and 42 students indicated that it was not applicable to their decision to enroll.

Forty-nine students reported that they were influenced positively to enroll by the preference of their friends on campus. Six students were influenced negatively by this factor, and 50 students reported that it was not applicable to their decision to enroll. Thirty-three students were influenced positively to enroll by the three-term system, while 21 students were influenced negatively, and 47 students reported that it was not applicable to their decision to enroll. Forty-two students responded that Big-Ten sports were a positive influence on

their decision to enroll, while 10 reported that it was a negative influence, and 56 students reported that it was not applicable to their enrollment decision.

The presence of student organizations influenced 42 students positively, while it influenced nine students negatively, and 53 students reported that it was not applicable in their decision to enroll. Thirty-seven students reported that they were influenced positively by the quality of the student body, while 12 students were influenced negatively by this factor, and 56 reported that it was not applicable in their decision to enroll. Forty students were influenced positively by the residence hall system, while eight students were negatively influenced, and 58 students reported that the quality of the residence halls was not applicable to their decision to enroll. Forty-two students reported intramural sports and athletic facilities as a positive influence on their decision to enroll, while five reported it to be a negative influence, and 58 reported it to be not applicable in their decision to enroll.

Thirty-nine students reported their parents' preference to be a positive influence on their decision to enroll, while six reported it to be a negative influence, and 62 students indicated that it was not applicable. This response brought into comparison the students' earlier rating that showed 26 of them felt that their parents were the single greatest influence in their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University.

Only 19 students indicated that the student/faculty ratio was a positive influence on their decision to enroll, while 26 students reported it to be a negative influence, and 58 students reported it to be not applicable. Twenty students responded that the food was a positive influence on their decision to enroll, while 21 students indicated that this was a negative influence, and 63 students indicated that it was not applicable to their decision to enroll.

Contact with a University admissions counselor was reported by 31 students as a positive influence, but as a negative influence by seven students, and not applicable to the enrollment decision of 63 students. Contact with a high school counselor was reported by 20 students as a positive influence, while 10 students reported the contact as a negative influence, and 68 students reported that it was not applicable to their enrollment decision. Fifteen students reported contact with a College recruitment officer as a positive influence on their enrollment decision, while six students indicated that it was a negative influence, and 80 students reported that this contact was not applicable to their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University.

In a separate question, 49 students indicated that the availability of financial aid was "very important," while 31 students indicated that it was "somewhat important" and 36 students indicated that it was "not important."

Taken together, these responses substantiated the students' previous ratings, which placed the highest values on visits to campus,

contact with currently enrolled students, faculty and staff, alumni, and admissions counselors, as well as letters, phone calls, or articles about the University and College.

The students were asked to indicate when they decided to apply for admission at Michigan State University, and when they decided to major in the College of Agriculture and Natural Resources, as a measurement of the timing of their college selection process. Eight students reported deciding to apply for admission prior to starting high school, while three reported making their decision during their freshman year of high school, five reported making their decision during their sophomore year of high school, 19 reported making the decision during their junior year of high school, 20 reported making the decision during the first half of their senior year, nine reported making the decision during the second half of their senior year, and 51 reported making their decision to apply after graduation from high school.

Fourteen students reported that they decided on their major in the college of Agriculture and Natural Resources prior to starting high school. Four reported deciding on their major during their freshman year of high school, one reported deciding during the sophomore year of high school, 19 reported deciding during the junior year of high school, 15 decided during the first half of their senior year, seven decided during second half of their senior year, and 48 decided after their high school graduation. Eight students reported that they had not yet decided on a major within the College. Thirteen students had reported their major preference as Agriculture and Natural Resources

No-Preference in response to an earlier question, therefore, it was acceptable and expected that some students would respond that they had not yet made a final decision.

C. Comparison of Freshman and Transfer Students

A comparison between freshman and transfer students was utilized to measure the difference in their preference for kinds of college information, sources of college information, recruitment activities, and the timing of their college choice decisions. Additional academic characteristics, including the students' high school grade point average, the students' age at the beginning of post-secondary studies at Michigan State University, the size of the graduating class from which the student came, and whether the student was enrolled in vocational agriculture courses in the secondary school system, were surveyed, but the researcher selected the freshman/transfer characteristic on which to report findings.

Sixty students reported that they were first-time freshman enrollees, while 3 students reported that they had transferred from a community college with 24 or fewer credits, 35 students reported that they had transferred from a community college with more than 24 credits, and 22 students reported that they had transferred from another four-year institution. All of the students who transferred from a community college or another four-year institution were grouped together into the transfer student category, therefore there were 60 transfer and 60 freshman students in the sample population.

1. Type of Information

When the students indicated which specific information about Michigan State University and the College of Agriculture and Natural Resources influenced their decision to enroll, freshmen students indicated significantly higher positive influence for several factors. Table 2 demonstrates that there was a significantly higher influence of a large University student population on freshman students. Fifty percent of the freshmen students were influenced positively by the large student population, while only 20.4 percent of the transfer students were influenced positively.

Table 3 demonstrates that there was a significant difference between the freshmen and transfer students in the positive influence of the size of the campus. The table indicates that 50.9 percent of the freshmen students were influenced positively by the size of the campus, compared to 20.0 percent of the transfer students.

In comparing the influence of the University residence halls, 50.0 percent of the freshmen students indicated that they were influenced positively, while only 24.0 percent of the transfer students indicated the same influence. Table 4 shows that this represented a significant difference.

Table 5 indicates that in the comparison between freshmen and transfer students, more freshmen students were influenced positively by the dormitory food in the University residence halls. The table shows that 26.8 percent of the freshmen students were influenced positively, while only 10.4 percent of the transfer students reported a positive influence. This represented a statistically significant difference.

TABLE 2. - Chi-Square comparison of freshmen and transfer students' influence response for large University student population.

Type of Influence	Freshmen (N=58)	Transfer (N=49)
Positive	29 50.0%	10 20.4%
Negative	5 8.6%	1 2.0%
Not applicable	24 41.4%	38 77.6%
Total	58 100.0%	49 100.0%
	Chi-Square = 5.82*	

*Significant at the .05 level

TABLE 3. - Chi-Square comparison of freshmen and transfer students' influence response for size of campus.

Type of Influence	Freshmen (N=57)	Transfer (N=50)
Positive	29 50.9%	10 20.0%
Negative	15 26.3%	18 36.0%
Not applicable	13 22.8%	22 44.0%
Total	57 100.0%	50 100.0%
	Chi-Square = 11.43*	

*Significant at the .05 level

TABLE 4. - Chi-Square comparison of freshmen and transfer students' influence response for residence halls.

Type of Influence	Freshmen (N=56)	Transfer (N=50)
Positive	28 50.0%	12 24.0%
Negative	4 7.1%	4 8.0%
Not applicable	24 42.9%	34 68.0%
Total	56 100.0%	50 100.0%
	Chi-Square = 7.81*	

*Significant at the .05 level

TABLE 5. - Chi-Square comparison of freshmen and transfer students' influence response for dormitory food.

Type of Influence	Freshmen (N=56)	Transfer (N=48)
Positive	15 26.8%	5 10.4%
Negative	13 23.2%	8 16.7%
Not applicable	28 50.0%	35 72.9%
Total	56 100.0%	35 100.0%
	Chi-Square = 6.39*	

*Significant at the .05 level

In the comparison between freshmen and transfer students' response to the influence of the campus atmosphere or appearance, Table 6 indicates that 94.6 percent of the freshmen students were influenced positively, while 77.4 percent of the transfer students reported the same influence. Although this is statistically significant, both groups indicated an overwhelmingly positive influence for this factor.

The location of the University was designated as a positive influence by 70.6 percent of the freshmen students, and by 55.3 percent of the transfer students. Table 7 shows that this represents a significant difference.

The difference between freshmen and transfer students' indication of their parents' college preference as a factor in their own college choice is summarized in Table 8. Fifty percent of the freshmen students and 20.4 percent of transfer students reported being influenced positively by their parents' college preference. This represents a significant statistical difference.

Five additional college and university information influence factors fell between the .05 and .10 significance level in the Chi-Square analysis. All five of the factors were rated to be a positive influence by a greater percentage of freshman students than transfer students. These factors included the cost of tuition and housing, placement services, the three term system, Big-Ten sports, and the advice of the students' high school counselor. There were no information sources for which a significant difference was found where transfer students rated the factor to be a positive influence more often than did freshmen students.

TABLE 6. - Chi-Square comparison of freshmen and transfer students' influence response for campus atmosphere or appearance.

Type of Influence	Freshmen (N=56)	Transfer (N=53)
Positive	53 94.6%	41 77.4%
Negative	0 0.0%	2 3.8%
Not applicable	3 5.4%	10 18.9%
Total	56 100.0%	53 100.0%
	Chi-Square = 7.22*	

*Significant at the .05 level

TABLE 7. - Chi-Square comparison of freshmen and transfer students' influence response for location of the University.

Type of Influence	Freshmen (N=57)	Transfer (N=47)
Positive	40 70.6%	26 55.3%
Negative	8 14.0%	4 8.5%
Not applicable	9 15.8%	17 36.2%
Total	57 100.0%	47 100.0%
	Chi-Square = 5.86*	

*Significant at the .05 level

TABLE 8. - Chi-Square comparison of freshmen and transfer students' influence response for parental preference.

Type of Influence	Freshmen (N=58)	Transfer (N=49)
Positive	29 50.0%	10 20.4%
Negative	5 8.6%	1 2.0%
Not applicable	24 41.4%	38 77.6%
Total	58 100.0%	49 100.0%
	Chi-Square = 14.43*	

*Significant at the .05 level

2. Sources of Information

The students were asked to indicate the source from which they first heard about the College of Agriculture and Natural Resources. Table 9 shows that the largest percentage of both freshmen and transfer students indicated that their parents were the first source from which they heard about the College. Even so, 22.8 percent of the freshmen students, as compared with only 17.9 percent of the transfer students identified this source. Other reported sources of first hearing about the College, in which the freshmen students reported much higher percentages included high school teachers, students in the College, and college night presentations. Transfer students reported University admissions personnel and "Other" at a much higher percentage than freshmen students in identifying the source from which they first heard about the College.

In the comparison of sources of information which most highly influenced their decision to enroll in the College, Table 10 shows that 28.6 percent of freshmen students, and 18.5 percent of transfer students indicated that their parents had been the most influential choice, but 25.0 percent of freshmen students and 20.4 percent of transfer students indicated "Other" as the most influential source. Even though these two factors make up a large percentage of the response for both freshmen and transfer students, they also indicate a higher percentage response for freshmen in both categories. In table 10, freshmen also show a slightly higher identification of their high school counselor, College faculty or staff, and College publications, as the most influential source of information on their decision to enroll. The transfer students showed a

TABLE 9. - Comparison of freshmen and transfer students' identified source of first hearing about the College of Agriculture and Natural Resources.

Source	Freshmen (N=57)	Transfer (N=56)
Parents	13 22.8%	10 17.9%
High school counselor	4 7.0%	3 5.4%
High school teacher	7 12.3%	3 5.4%
College of Agriculture and Natural Resources student	5 8.8%	1 1.8%
College of Agriculture and Natural Resources graduate	4 7.0%	2 3.6%
Brother or sister	4 7.0%	4 7.1%
Friends	5 8.8%	7 12.5%
Television or radio	1 1.8%	0 0.0%
Newspaper or magazine	1 1.8%	1 1.8%
College visit to high school	0 0.0%	0 0.0%
College night presentation	3 5.3%	0 0.0%
College faculty or staff	1 1.8%	2 3.6%
College recruitment personnel	0 0.0%	2 3.6%

TABLE 9. - continued.

Source	Freshmen (N=57)	Transfer (N=56)
College publications	4 7.0%	4 7.1%
College mailings or memos	2 3.5%	3 5.4%
University admissions personnel	1 1.8%	7 12.5%
Other	2 3.5%	7 12.5%
Total	57 100.0%	56 100.0%

TABLE 10. - Comparison of freshmen and transfer students' identified source of information which most influenced the enrollment decision.

Source	Freshmen (N=56)	Transfer (N=54)
Parents	16 28.6%	10 18.5%
High school counselor	4 7.1%	2 3.7%
High school teacher	3 5.4%	2 3.7%
College of Agriculture and Natural Resources student	1 1.8%	0 0.0%
College of Agriculture and Natural Resources graduate	2 3.6%	4 7.4%
Brother or sister	1 1.8%	3 5.6%
Friends	0 0.0%	3 5.6%
Television or radio	1 1.8%	0 0.0%
Newspaper or magazine	0 0.0%	1 1.9%
College visit to high school	1 1.8%	0 0.0%
College night presentation	0 0.0%	0 0.0%
College faculty or staff	7 12.5%	5 9.3%
College recruitment personnel	0 0.0%	3 5.6%

TABLE 10. - continued.

Source	Freshmen (N=56)	Transfer (N=54)
College publications	6 10.7%	3 5.6%
College mailings or memos	0 0.0%	3 5.6%
University admissions personnel	0 0.0%	4 7.4%
Other	14 25.0%	11 20.4%
Total	56 100.0%	54 100.0%

slightly higher indication of the most influential source of college information in six categories. These include College graduates, brothers or sisters, friends, College recruitment personnel, College mailings, and University admissions personnel.

In response to a question about sources of information which they would find helpful if remaking their college choice decisions, Table 11 demonstrates that a higher percentage of the freshmen students indicated that they would like to have contact with high school counselors and teachers, and that they would like to have visited the campus and attended University athletic events. They would also liked to have seen television programs, heard radio announcements, attended career day/night programs, received a phone call or a letter from the College of Agriculture and Natural Resources, and received publications from the University. The transfer students indicated a higher preference for meeting with University faculty and a University admissions counselor.

3. Recruitment Activities

Recruitment activities were defined earlier to include any means or mode of transmitting information, regarding a university, college, or major program, to a potential student. Although the primary focus of some activities was recruitment, many additional activities served the purpose of providing exposure to the University campus and facilities, faculty and students, and academic programs and services. For the purpose of the following discussion, all the interactions which the student had with Michigan State University or the College of Agriculture and Natural Resources prior to enrollment were considered for their potential influence on the students' decision to enroll.

TABLE 11. - Comparison of freshmen and transfer students' perceived preference for sources of information which influence the enrollment decision.

Source	Freshmen (N=57)	Transfer (N=56)
Visit to campus	52 91.2%	47 83.9%
University students	39 68.4%	41 73.2%
University graduates	33 57.9%	29 51.8%
High school counselors	28 49.1%	17 30.4%
High school teacher	18 31.6%	6 10.7%
University open house	25 43.9%	21 37.5%
University athletic event	16 28.1%	12 21.4%
Newspaper/magazine	6 10.5%	6 10.7%
Television	5 8.8%	1 1.8%
Radio	4 7.0%	1 1.8%
Poster in school	5 8.8%	5 8.9%
Phone call from the College	31 54.4%	19 33.9%
Article about the College	30 52.6%	27 48.2%
College booth/display	13 22.8%	13 23.2%

TABLE 11. - continued.

Source	Freshmen (N=57)	Transfer (N=56)
Letter from the College	35 61.4%	30 53.6%
Letter from the University	28 49.1%	28 50.0%
University admissions counselor	23 40.4%	27 48.2%
University publications	28 49.1%	16 28.6%
University faculty/staff	30 52.6%	34 60.7%
High school career day/night program	19 33.3%	9 16.1%
Other contact	2 3.5%	3 5.4%

Twenty-three activities and experiences were evaluated for their influence on the students' decision to enroll. Table 12 indicates that there was a significant difference between the freshmen and transfer students in their preference for visiting a friend on the University campus. While only 36.4 percent of the freshmen students found the visit to be helpful, 49.1 percent of the transfer students rated it as helpful.

Table 13 demonstrates that 75.0 percent of the freshmen respondents found the opportunity to talk with a University graduate helpful, while 54.7 percent of the transfer students rated the opportunity as helpful. This represents a statistically significant difference.

Freshmen students also reported discussions with their high school counselor to be helpful more often than did transfer students. Table 14 shows a significant difference, in that 61.4 percent of the freshman students rated contact with a high school counselor as helpful, and only 24.5 percent of the transfer students rated it as helpful.

The comparison of freshmen and transfer students' response to a closely related question about the helpfulness of a discussion with a high school teacher shows an even greater difference between the two groups. Table 15 shows that 56.1 percent of the freshmen students found the contact with a high school teacher to be helpful, while only 13.5 percent of the transfer students rated it as helpful. This result is statistically significant.

Table 16 demonstrates that although 83.3 percent of freshmen students, and 90.0 percent of transfer students indicated that they had

TABLE 12. - Chi-Square comparison of freshmen and transfer students' preference for visiting a friend on campus.

Type of Contact	Freshmen (N=55)	Transfer (N=53)
Helpful	20 36.4%	26 49.1%
Not helpful	0 0.0%	3 5.7%
No contact	35 63.6%	24 45.3%
Total	55 100.0%	53 100.0%
	Chi-Square = 5.80*	

* Significant at the .05 level.

TABLE 13. - Chi-Square comparison of freshmen and transfer students' preference for talking with University graduates.

Type of Contact	Freshmen (N=56)	Transfer (N=53)
Helpful	42 75.0%	29 54.7%
Not helpful	0 0.0%	2 3.8%
No contact	14 25.0%	22 41.5%
Total	56 100.0%	53 100.0%
	Chi-Square = 6.08*	

* Significant at the .05 level.

TABLE 14. - Chi-Square comparison of freshmen and transfer students' preference for talking with high school counselors.

Type of Contact	Freshmen (N=57)	Transfer (N=53)
Helpful	35 61.4%	13 24.5%
Not helpful	15 26.3%	6 11.3%
No contact	7 12.3%	34 64.2%
Total	57 100.0%	53 100.0%
	Chi-Square = 31.62*	

* Significant at the .05 level.

TABLE 15. - Chi-Square comparison of freshmen and transfer students' preference for talking with high school faculty.

Type of Contact	Freshmen (N=57)	Transfer (N=52)
Helpful	32 56.1%	7 13.5%
Not helpful	13 22.8%	9 17.3%
No contact	12 21.1%	36 69.2%
Total	57 100.0%	52 100.0%
	Chi-Square = 28.58*	

* Significant at the .05 level.

TABLE 16. - Chi-Square comparison of freshmen and transfer students' preference for a radio advertisement/story.

Type of Contact	Freshmen (N=54)	Transfer (N=50)
Helpful	6 11.1%	0 0.0%
Not helpful	3 5.6%	5 10.0%
No contact	45 83.3%	45 90.0%
Total	54 100.0%	50 100.0%
	Chi-Square = 6.36*	

* Significant at the .05 level.

not heard any radio advertisements or stories about the College of Agriculture and Natural resources, 11.1 percent of the transfer students found the advertisements and stories they had heard to be helpful. No freshmen students indicated that they found information on the radio to be helpful in making their enrollment decision. This is a statistically significant finding.

When asked about the value of a letter from the College, 60.4 percent of the freshmen students, and 40.4 percent of the transfer students indicated that the letter was helpful in their decision to enroll. Table 17 shows that a significant difference exists in the comparison between the two groups.

Although both groups reported a slightly higher rating for the value of a letter from the University, Table 18 demonstrates that there is also a significant difference between freshmen and transfer students' feelings about the helpfulness of a letter from the University. In fact, the letter was found to be helpful by 70.9 percent of freshmen students, and by 47.2 percent of transfer students.

In moving to a rating of the value of University publications, Table 19 shows that 75.5 percent of the freshmen students, and 50.5 percent of the transfer students found the publications to be helpful. Although this is statistically significant, both groups have indicated a relatively strong preference for University publications.

In the final statistically significant recruitment activity, 27.8 percent of the freshmen students indicated that attending an FFA activity at the campus was helpful while only 9.8 percent of the transfer students

TABLE 17. - Chi-Square comparison of freshmen and transfer students' preference for receiving a letter from the College.

Type of Contact	Freshmen (N=56)	Transfer (N=52)
Helpful	34 60.7%	21 40.4%
Not helpful	5 8.9%	3 5.8%
No contact	17 30.4%	28 53.8%
Total	56 100.0%	52 100.0%
	Chi-Square = 6.12*	

* Significant at the .05 level.

TABLE 18. - Chi-Square comparison of freshmen and transfer students' preference for receiving a letter from the University.

Type of Contact	Freshmen (N=55)	Transfer (N=53)
Helpful	39 70.9%	25 47.2%
Not helpful	10 18.2%	3 5.7%
No contact	6 10.9%	25 47.2%
Total	55 100.0%	53 100.0%
	Chi-Square = 18.45*	

* Significant at the .05 level.

TABLE 19. - Chi-Square comparison of freshmen and transfer students' preference for receiving University publications.

Type of Contact	Freshmen (N=53)	Transfer (N=53)
Helpful	40 75.5%	27 50.9%
Not helpful	3 5.7%	3 5.7%
No contact	10 18.9%	23 43.4%
Total	53 100.0%	53 100.0%
	Chi-Square = 7.64*	

* Significant at the .05 level.

found this experience to be helpful. Table 20 shows that only 22 students reported attending an FFA activity on campus, but that 20 of those found it to be helpful.

4. Timing of College Choice

The timing of the students' college choice decisions was measured at two decision points. The first was the students' decision to apply for admission to Michigan State University, and the second was the students' decision to pursue a major in the College of Agriculture and Natural resources.

Table 21 shows that there is a significant difference between the timing of the freshmen students' decision to apply for admission to the University, and the timing of the transfer students' decision to apply. While 10.5 percent of the freshmen students decided to apply before starting high school, only 3.4 percent of the transfer students made the decision as early. In a similar comparison, 31.6 percent of the freshmen students decided to apply for admission at the University during their junior year of high school, while only 1.7 percent of the transfer students decided where they would eventually apply by that point in their high school experience. The trend towards an early decision to apply at Michigan State University continued for the freshmen students, with 29.8 percent deciding during the first half of their senior year in high school, and 14.0 percent deciding to apply during the second half of their senior year. Transfer students continued to delay the decision, with less than 6.0 percent deciding to apply during any year of during high school. In fact, 82.8 percent of the transfer students did not

TABLE 20. - Chi-Square comparison of freshmen and transfer students' preference for attending an FFA program on campus.

Type of Contact	Freshmen (N=54)	Transfer (N=51)
Helpful	15 27.8%	5 9.8%
Not helpful	0 0.0%	2 3.9%
No contact	39 72.2%	44 86.3%
Total	54 100.0%	51 100.0%
	Chi-Square = 7.22*	

* Significant at the .05 level.

TABLE 21. - Chi-Square comparison of freshmen and transfer students' timing of the decision to apply for admission to the University.

Type of Contact	Freshmen (N=57)	Transfer (N=58)
Before starting high school	6 10.5%	2 3.4%
Freshman year of high school	1 1.8%	2 3.4%
Sophomore year of high school	4 7.0%	1 1.7%
Junior year of high school	18 31.6%	1 1.7%
First half of senior year of high school	17 29.8%	3 5.2%
Second half of senior year of high school	8 14.0%	1 1.7%
After high school graduation	3 5.3%	48 82.8%
Total	57 100.0%	58 100.0%
	Chi-Square - 74.29*	

* Significant at the .05 level

decide to apply for admission at the University until after high school graduation.

As indicated in Table 22, there was also a significant difference between freshmen and transfer students in their decision to pursue a specific major within the College of Agriculture and Natural Resources. The difference did not begin to appear until the two groups of students reached their junior year of high school. In that time period, 22.8 percent of the freshmen students, and 10.2 percent of the transfer students decided upon a specific major. During the first half of the high school senior year, 22.8 percent of the freshmen students decided upon a major, while only 3.4 percent of the transfer students decided. The trend continued in to the second half of the high school senior year, when 12.3 percent of the freshmen students made their college major decision, while none of the transfer students reported arriving at a decision.

After high school completion, 72.9 percent of the transfer students decided in which major to enroll, while only 8.8 percent of the freshmen students made their decision. This left 12.3 percent of the freshmen students and only 1.7 percent of the transfer students without a final decision regarding their college major.

D. Comparison of Male and Female Students

Data was collected for two ascribed characteristics, including the students' ethnic background and gender. One hundred and eighteen students indicated that their ethnic background was white/caucasian, while on student reported being spanish american/hispanic, and one student reported being asian/pacific islander. Clearly, this breakdown

TABLE 22. - Chi-Square comparison of freshmen and transfer students' timing of the decision to enroll in a major in the College.

Type of Contact	Freshmen (N=57)	Transfer (N=59)
Before starting high school	8 14.0%	6 10.2%
Freshman year of high school	3 5.3%	1 1.7%
Sophomore year of high school	1 1.8%	0 0.0%
Junior year of high school	13 22.8%	6 10.2%
First half of senior year of high school	13 22.8%	2 3.4%
Second half of senior year of high school	7 12.3%	0 0.0%
After high school graduation	5 8.8%	43 72.9%
Not decided yet	7 12.3%	1 1.7%
Total	57 100.0%	59 100.0%
	Chi-Square - 54.50*	

* Significant at the .05 level

of ethnicity did not provide a foundation for an analysis of the sample population by ethnic background.

Sixty-nine students reported their gender as male, while 50 students reported their gender as female, and one student did not respond to the item which requested gender information.

1. Type of Information

Male and female students differed significantly in their response to three factors which provided a positive influence in their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University. Fifty percent of male students reported that Big-Ten sports were a positive influence in their enrollment decision, while only 7.8 percent of the female students reported the same preference. Table 23 shows that this result is statistically significant.

Male students also reported a significantly higher preference for dormitory food. Table 24 indicates that 26.2 percent of male students, and 9.3 percent of female students rated the dormitory food as a positive influence in their enrollment decision. Even so, a far greater percentage of both male and female students indicated that the quality of dormitory food was not a positive or negative influence on their enrollment decision.

A similar finding appears in Table 25, which compares male and female students' response for the positive or negative influence of the student/faculty ratio. Twenty-one percent of the male students and 14.6 percent of the female students reported the student/faculty ratio to be a positive influence, while 46.8 percent of the male students, and 70.7 percent of the female students reported that the student/faculty ratio

TABLE 23. - Chi-Square comparison of male and female students' influence response for Big-Ten sports.

Type of influence	Male (N=64)	Female (N=44)
Positive	32 50.0%	10 22.7%
Negative	5 7.8%	5 11.4%
Not applicable	27 42.2%	29 65.9%
Total	64 100.0%	44 100.0%
	Chi-Square = 8.17*	

*Significant at the .05 level

TABLE 24. - Chi-Square comparison of male and female students' influence response for dormitory food.

Type of influence	Male (N=61)	Female (N=43)
Positive	16 26.2%	4 9.3%
Negative	9 14.8	12 27.9%
Not applicable	36 59.0%	27 62.8%
Total	61 100.0%	43 100.0%
	Chi-Square = 5.98*	

*Significant at the .05 level

TABLE 25. - Chi-Square comparison of male and female students' influence response for student/faculty ratio.

Type of influence	Male (N=62)	Female (N=41)
Positive	13 21.0%	6 14.6%
Negative	20 32.3%	6 14.6%
Not applicable	29 46.8%	29 70.7%
Total	62 100.0%	41 100.0%
	Chi-Square = 6.09*	

*Significant at the .05 level

was not an important factor in their enrollment decision. The results are statistically significant.

Two additional factors, which failed to meet the Chi-Square .05 significance test but did fall between .05 and .10 significance levels, include the comparison of male and female students' reported tuition and housing cost factor, and placement services factor. In considering the cost of tuition and housing, 31.8 percent of the female students rated this to be a positive influence, while only 20.6 percent of the male students offered a similar response. Additionally, 47.7 percent of the female students reported the cost of tuition and housing to be a negative influence, while 28.1 percent of male students reported the same negative influence for tuition and housing costs. Therefore, the key aspect of the responses to this factor is that 41.3 percent of the male students, but only 20.5 percent of the female students, reported that the cost of tuition and housing was not an important factor in their enrollment decision.

In the comparison between male and female students' reported influence for placement services, both groups reported a relatively high positive response, but female students reported a 68.9 percent positive influence while 54.0 percent of male students reported a positive influence.

2. Sources of Information

When asked to report the source from which they first heard about the College of Agriculture and Natural Resources, 21.9 percent of the male students, and 18.4 percent of the female students reported that this source was their parents. Table 26 shows that this was the highest rated

TABLE 26. - Comparison of male and female students' identified source of first hearing about the College of Agriculture and Natural Resources.

Source	Male (N=64)	Female (N=49)
Parents	14 21.9%	9 18.4%
High school counselor	6 9.4%	1 2.0%
High school teacher	5 7.8%	5 10.2%
College of Agriculture and Natural Resources student	4 6.3%	2 4.1%
College of Agriculture and Natural Resources graduate	5 7.8%	1 2.0%
Brother or sister	7 10.9%	1 2.0%
Friends	6 9.4%	6 12.2%
Television or radio	0 0.0%	1 2.0%
Newspaper or magazine	1 1.6%	1 2.0%
College visit to high school	0 0.0%	0 0.0%
College night presentation	3 4.7%	0 0.0%
College faculty or staff	2 3.1%	1 2.0%
College recruitment personnel	0 0.0%	2 4.1%

TABLE 26. - continued.

Source	Male (N=64)	Female (N=49)
College publications	2 3.1%	6 12.2%
College mailings and memos	2 3.1%	3 6.1%
University admissions personnel	4 6.3%	4 8.2%
Other	3 4.7%	6 12.2%
Total	64 100.0%	49 100.0%

factor for both male and female students. In most cases there was only a slight difference between the sources identified by male and female students. A notably higher percentage of male students reported that their high school counselor, College graduates, and brothers and sisters were the first source from which they heard about the College, while a notably higher percentage of female students reported College recruitment personnel, and "Other" as the source from which they first heard about the College.

Students were also asked to identify the source of information which most influenced their enrollment decision. Table 27 demonstrates that the highest percentage of students were influenced by their parents, but also that 33.8 percent of the male students reported their parents to be the single greatest influence, while only 8.9 percent of the female students reported being most influenced by their parents. A higher percentage of male students also reported being influenced by their brothers and sisters, while a higher percentage of female students indicated being influenced by "Other" sources.

Table 28 shows the comparison between male and female students' perceived preference for specific contacts or materials if they were remaking their college choice decision. More male students would like to have attended athletic events, visited the campus, and talked with University graduates. More female students would like to have talked with high school counselors and faculty, attended a high school career day/night program, and received University publications, read newspaper/magazine advertisements, and read articles about the College.

TABLE 27. - Comparison of male and female students' identified source of information which most influenced the enrollment decision.

Source	Male (N=65)	Female (N=45)
Parents	22 33.8%	4 8.9%
High school counselor	4 6.2%	2 4.4%
High school teacher	3 4.6%	2 4.4%
College of Agriculture and Natural Resources student	0 0.0%	1 2.2%
College of Agriculture and Natural Resources graduate	4 6.2%	2 4.4%
Brother or sister	4 6.2%	0 0.0%
Friends	2 3.1%	1 2.2%
Television or radio	1 1.5%	0 0.0%
Newspaper or magazine	0 0.0%	1 2.2%
College visit to high school	0 0.0%	1 2.2%
College night presentation	0 0.0%	0 0.0%
College faculty or staff	6 9.2%	6 13.3%
College recruitment personnel	1 1.5%	2 4.4%

TABLE 27. - continued.

Source	Male (N=65)	Female (N=45)
College publications	2 3.1%	7 15.6%
College mailings and memos	1 1.5%	2 4.4%
University admissions personnel	2 3.1%	2 4.4%
Other	13 20.0%	12 26.7%
Total	65 100.0%	45 100.0%

TABLE 28. - Comparison of male and female students' perceived preference for sources of information which influence the enrollment decision.

Source	Male (N=64)	Female (N=49)
Visit to campus	59 92.2%	40 81.6%
University students	44 68.8%	36 73.5%
University graduates	38 59.4%	24 49.0%
High school counselors	23 35.9%	22 44.9%
High school teacher	11 17.2%	13 26.5%
University open house	27 42.2%	19 38.8%
University athletic event	20 31.3%	8 16.3%
Newspaper/magazine	5 7.8%	7 14.3%
Television	2 3.1%	4 8.2%
Radio	2 3.1%	3 6.1%
Poster in school	5 7.8%	5 10.2%
Phone call from the College	28 43.8%	22 44.9%
Article about the College	26 40.6%	31 63.3%
College booth/display	14 21.9%	12 24.5%

TABLE 28. - continued.

Source	Male (N=64)	Female (N=49)
Letter from the College	37 57.8%	38 57.1%
Letter from the University	32 50.0%	24 29.0%
University admissions counselor	27 42.2%	23 46.9%
University publications	23 35.9%	21 42.9%
University faculty/staff	37 57.8%	27 55.1%
High school career day/night program	10 15.6%	18 36.7%
Other contact	2 3.1%	3 6.1%

3. Recruitment Activities

Students were asked to report which recruitment activities conducted by the College of Agriculture and Natural Resources or Michigan State University were helpful or not helpful in their decision to enroll at the University. In the comparison between the responses of male and female students, a significant difference was noted for four recruitment activities.

Table 29 shows that 50.9 percent of the male students indicated that they found a visit to a friend on campus helpful, while only 32.7 percent of the female students gave a similar positive response. This result is statistically significant.

Female students reported a helpful rating which was significantly higher than male students' response for their discussions with high school faculty. Table 30 shows that while only 30.6 percent of male students found these discussions helpful, 42.6 percent of female students found them helpful in making the decision to enroll.

In another statistically significant response, 28.3 percent of the male students indicated that they found attending an athletic event helpful, and 23.4 percent of the female students indicated they found it helpful. These response levels alone do not distinguish the two groups, but Table 31 shows that 16.7 percent of the male students found attendance at an athletic event was not helpful, and 55.0 percent said they had not attended a University athletic event, while only 2.1 percent of the female students found the experience was not helpful in making their enrollment decision, while 74.5 percent indicated that they had not attended a University athletic event.

TABLE 29. - Chi-Square comparison of male and female students' preference for visiting a friend on campus.

Type of Contact	Male (N=59)	Female (N=49)
Helpful	30 50.8%	16 32.7%
Not helpful	3 5.1%	0 0.0%
No contact	26 44.1%	33 67.3%
Total	59 100.0%	49 100.0%
	Chi-Square = 7.23*	

* Significant at the .05 level.

TABLE 30. - Chi-Square comparison of male and female students' preference for talking with high school faculty.

Type of Contact	Male (N=62)	Female (N=47)
Helpful	19 30.6%	20 42.6%
Not helpful	18 29.0%	4 8.5%
No contact	25 40.3%	23 48.9%
Total	62 100.0%	47 100.0%
	Chi-Square = 7.09*	

* Significant at the .05 level.

TABLE 31. - Chi-Square comparison of male and female students' preference for attending a University athletic event.

Type of Contact	Male (N=60)	Female (N=47)
Helpful	17 28.3%	11 23.4%
Not helpful	10 16.7%	1 2.1%
No contact	33 55.0%	35 74.5%
Total	60 100.0%	47 100.0%
	Chi-Square = 7.24*	

* Significant at the .05 level.

Female students also reported a significantly higher helpful rating for the value of attending a 4-H program on the campus. Table 32 shows that while 35.6 percent of the female students reported the experience to be helpful, only 6.9 percent of the male students rated the experience as helpful.

Two additional recruitment activities were rated helpful at a notably higher rate by female students than male students, although they did not meet the Chi-Square .05 significance test but did fall between the .05 and .10 significance levels. These activities included seeing a television advertisement/story and reading an article about the College of Agriculture and Natural Resources. In consideration for the helpful rating of a television advertisement/story, female students gave the activity a 21.3 percent rating while the male students gave the activity a 11.7 percent rating. The female students rated the opportunity to read an article about the College as helpful at a 46.8 level, while 39.3 percent of the male students rated it as helpful.

4. Timing of College Choice

The students reported when they made their decision to apply for admission to Michigan State University and the comparison between male and female students showed only a small percentage difference in the timing of their decisions. Table 33 shows that 10.2 percent of the female students reported making their application decision during their sophomore year of high school and that none of the male students reported making their decision during that year. During their junior year of high school 19.7 percent of the male students and 12.2 percent of the female

TABLE 32. - Chi-Square comparison of male and female students' preference for attending a 4-H program on campus.

Type of Contact	Male (N=58)	Female (N=45)
Helpful	4 6.9%	16 35.6%
Not helpful	2 3.4%	0 0.0%
No contact	52 89.7%	29 64.4%
Total	58 100.0%	45 100.0%
	Chi-Square = 14.32*	

* Significant at the .05 level.

TABLE 33. - Comparison of male and female students' timing of the decision to apply for admission to the University.

Type of Contact	Male (N=66)	Female (N=49)
Before starting high school	4 6.1%	4 8.2%
Freshman year of high school	2 3.0%	1 2.0%
Sophomore year of high school	0 0.0%	5 10.2%
Junior year of high school	13 19.7%	6 12.2%
First half of senior year of high school	10 15.2%	10 20.4%
Second half of senior year of high school	7 10.6%	2 4.1%
After high school graduation	30 45.5%	21 42.9%
Total	66 100.0%	49 100.0%

students reported making their decision to apply for admission, but during the first half of their senior year of high school 20.4 percent of the female students made their decision, while 15.2 percent of the male students made their decision to apply for admission.

In reporting the timing of their decision to enroll in their respective majors in the College of Agriculture and Natural Resources, the comparison of male and female and students did not show any notable differences. Table 34 demonstrates the high level of similarity between the responses of the two groups.

E. Comparison of Students by Residency Background: Rural/Farm, Village/Small Town, Small City, and Large City

Students' residency background was one of six social characteristics for which data was collected. The other characteristics included the students' preference for an agriculture or natural resources major, whether the student was a 4-H member, the income level of the students' parental family, and the occupations of the students' mother and father. Any of the factors could have been selected for utilization as a foundation by which to analyze the students' preference for types of information, sources of information, recruitment activities, and the timing of the college selection process. Because some majors can not easily be assigned as clearly in agriculture or natural resources, it would have been difficult to use major choice as a means for comparing students' responses. All other choices would have been equally desirable for analysis.

TABLE 34. - Comparison of male and female students' timing of the decision to enroll in a major in the College.

Type of Contact	Male (N=67)	Female (N=49)
Before starting high school	8 11.9%	6 12.2%
Freshman year of high school	3 4.5%	1 2.0%
Sophomore year of high school	0 0.0%	1 2.0%
Junior year of high school	10 14.9%	9 18.4%
First half of senior year of high school	10 14.9%	5 10.2%
Second half of senior year of high school	3 4.5%	4 8.2%
After high school graduation	29 43.3%	19 38.8%
Not decided yet	4 6.0%	4 8.2%
Total	67 100.0%	49 100.0%

The choice to use the students' residency background was made by reviewing the students' responses in the original five response categories of the residency background question. A total of one hundred and nineteen students responded to the question. Because only seven students responded that they were from a village, their responses were combined with the 20 students indicating that they were from a small town. Therefore, four categories were utilized in the tabulation of the students' residency background. The categories include rural/farm; village/small town, with populations of 1 to 9,999; small city, with populations of 10,000 to 49,999; and large city, with populations of 50,000 or more. Forty-eight students indicated that they were from farms or rural areas, 27 students indicated that they were from a village/small town, 24 students indicated that they were from a small city, and 20 students indicated that they were from a large city.

1. Type of Information

Students from various residency backgrounds differed significantly in their response to three factors which provided a positive influence in their decision to enroll in Michigan State University's College of Agriculture and Natural Resources. Table 35 demonstrates that although no students indicated that they were influenced negatively by the agriculture and natural resources reputation of the College, 100.0 percent of the rural/farm students, 88.0 percent of the students from a village/small town 82.6 percent of the students from a small city, and 78.9 percent of the students from a large city indicated that they were influenced positively. These results are statistically significant.

TABLE 35. - Chi-Square comparison of students' residency background influence response for agriculture and natural resources reputation.

Type of Influence	Rural/Farm (N=46)	Village/ Small Town (N=25)	Small City (N=23)	Large City (N=19)
Positive	46 100.0%	22 88.0%	19 82.6%	15 78.9%
Negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Not applicable	0 0.0%	3 12.0%	4 17.4%	4 21.1%
Total	46 100.0%	25 100.0%	23 100.0%	19 100.0%
	Chi-Square = 9.41*			

*Significant at the .05 level

The students also demonstrated a significant difference between residency groups in their rating of the influence of Big-Ten sports on their enrollment decision. Table 36 shows that 39.1 percent of the rural/farm students responded that the presence of Big-Ten sports were not applicable in their decision to enroll in the College, but 52.4 percent of the students from a village/small town, 60.9 percent of the students from a small city, and 76.5 percent of the students from a large city marked a similar response.

Table 37 shows that 55.6 percent of the rural/farm students were influenced positively by their parents' preference for the College, but that in the other residency categories a much smaller percentage were influenced positively by their parents' preference. Only 19.0 percent of the students from a village/small town, 22.7 percent of the students from a small city, and 27.8 percent of the students from a large city reported that their parents' preference was a positive influence on their enrollment decision.

The students also demonstrated a notable difference between residency groups in their rating of the influence of the quality of the student body on their enrollment decision. Even though this factor did not meet the Chi-Square .05 significance test, it did fall between the .05 and .10 significance. Although 4.5 percent of the students from a small city and 5.9 percent of the students from a large city were influenced negatively by the quality of the student body, 22.2 percent of the rural/farm students were influenced negatively.

TABLE 36. - Chi-Square comparison of students' residency background influence response for Big-Ten sports.

Type of Influence	Rural/Farm (N=46)	Village/ Small Town (N=21)	Small City (N=23)	Large City (N=17)
Positive	20 43.5%	10 47.6%	8 34.8%	4 23.5%
Negative	8 17.4%	0 0.0%	1 4.3%	0 0.0%
Not applicable	18 39.1%	11 52.4%	14 60.9%	13 76.5%
Total	46 100.0%	21 100.0%	23 100.0%	17 100.0%
	Chi-Square = 13.57*			

*Significant at the .05 level

TABLE 37. - Chi-Square comparison of students' residency background influence response for parental preference.

Type of Influence	Rural/Farm (N=45)	Village/ Small Town (N=21)	Small City (N=22)	Large City (N=18)
Positive	25 55.6%	4 19.0%	5 22.7%	5 27.8%
Negative	4 8.9%	2 9.5%	0 0.0%	0 0.0%
Not applicable	16 35.6%	15 71.4%	17 77.3%	13 72.2%
Total	45 100.0%	21 100.0%	22 100.0%	18 100.0%
	Chi-Square = 17.98*			

*Significant at the .05 level

2. Sources of Information

The students reported the source from which they first heard about the College of Agriculture and Natural Resources. Their responses, which are summarized in Table 38, varied significantly by their respective residency backgrounds. While none of the students from a large city indicated that their parents were the source from which they first heard about the College, 21.7 percent of the students from a small city, 24.0 percent of the students from a village/small town, and 26.7 percent of the rural/farm students did indicate that their parents were the first source form which they heard about the College. Table 38 also shows that 21.1 percent of the students from a large city first heard about the College from friends, while another 21.1 percent from a large city first heard about the College from University admissions personnel. These rates were much higher than the rates reported by students in other residency categories for either source of information. High school teachers were reported to be the source from which 17.8 percent of the rural/farm students first heard about the College, while only 4.0 percent of the students from a village/small town, and only 4.3 percent of the students from a small city reported that thigh school teachers were the first source from which they heard about the College.

Table 39 shows that there were not significant differences in the sources of information which students from various residency backgrounds reported to be the most influential in their decision to enroll in the College of Agriculture and Natural Resources. Even so, 30.2 percent of rural/farm students, 24.0 percent of students from a village/small town,

TABLE 38. - Chi-Square comparison of students' residency background and identified source of first hearing about the College of Agriculture and Natural Resources.

Source	Rural/Farm (N=45)	Village/ Small Town (N=25)	Small City (N=23)	Large City (N=19)
Parents	12 26.7%	10 24.0%	5 21.7%	0 0.0%
High school counselor	1 2.2%	1 4.0%	3 13.0%	2 10.5%
High school teacher	8 17.8%	1 4.0%	1 4.3%	0 0.0%
College of Agriculture and Natural Resources student	3 6.7%	0 0.0%	2 8.7%	1 5.3%
College of Agriculture and Natural Resources graduate	4 8.9%	1 4.0%	0 0.0	1 5.3%
Brother or sister	5 11.1%	0 0.0%	2 8.7%	1 5.3%
Friends	3 6.7%	3 12.0%	2 8.7%	4 21.1%
Television or radio	0 0.0%	0 0.0%	1 4.3%	0 0.0%
Newspaper or magazine	1 2.2%	1 4.0%	0 0.0%	0 0.0%
College visit to high School	0 0.0%	0 0.0%	0 0.0%	0 0.0%
College night presentation	0 0.0%	1 4.0%	0 0.0%	2 10.5%
College faculty or staff	1 2.2%	0 0.0%	0 0.0%	2 10.5%

TABLE 38. - continued.

Source	Rural/Farm (N=45)	Village/ Small Town (N=25)	Small City (N=23)	Large City (N=19)
College recruitment personnel	0 0.0%	1 4.0%	1 4.3%	0 0.0%
College publications	3 6.7%	3 12.0%	2 8.7%	0 0.0%
College mailings and memos	0 0.0%	3 12.0%	2 8.7%	0 0.0%
University admissions personnel	2 4.4%	0 0.0%	2 8.7%	4 21.1%
Other	2 4.4%	4 16.0%	0 0.0%	2 10.5%
Total	45 100.0%	25 100.0%	23 100.0%	19 100.0%
	Chi-Square = 67.29*			

* Significant at the .05 level

TABLE 39. - Comparison of students' residency background and identified source of information which most influenced the enrollment decision.

Source	Rural/Farm (N=43)	Village/ Small Town (N=25)	Small City (N=23)	Large City (N=18)
Parents	13 30.2%	6 24.0%	2 8.7%	5 27.8%
High school counselor	2 4.7%	1 4.0%	2 8.7%	1 5.6%
High school teacher	4 9.3%	1 4.0%	0 0.0%	0 0.0%
College of Agriculture and Natural Resources student	1 2.3%	0 0.0%	0 0.0%	0 0.0%
College of Agriculture and Natural Resources graduate	3 7.0%	1 4.0%	1 4.3	1 5.6%
Brother or sister	2 4.7%	0 0.0%	2 8.7%	0 0.0%
Friends	0 0.0%	1 4.0%	1 4.3%	1 5.6%
Television or radio	1 2.3%	0 0.0%	0 0.0%	0 0.0%
Newspaper or magazine	0 0.0%	0 0.0%	0 0.0%	1 5.6%
College visit to high school	1 2.3%	0 0.0%	0 0.0%	0 0.0%
College night presentation	0 0.0%	0 0.0%	0 0.0%	0 0.0%
College faculty or staff	3 7.0%	4 16.0%	2 8.7%	3 16.7%

TABLE 39. - continued.

Source	Rural/Farm (N=45)	Village/ Small Town (N=25)	Small City (N=23)	Large City (N=19)
College recruitment personnel	1 2.3%	0 0.0%	2 8.7%	0 0.0%
College publications	1 2.3%	4 16.0%	3 13.0%	1 5.6%
College mailings and memos	1 2.3%	2 8.0%	0 0.0%	0 0.0%
University admissions personnel	0 0.0%	0 0.0%	3 13.0%	1 5.6%
Other	10 23.3%	5 20.0%	5 21.7%	4 22.2%
Total	43 100.0%	25 100.0%	23 100.0%	18 100.0%

and 27.8 percent of students from a large city indicated that their parents were the most influential source of information in making their College enrolment decision. These responses represented the most often reported source which most influenced the students in each of these three residency background categories. The second most often reported category for the rural/farm students, village/small town students, and large city students was "Other." For students in the small city residency category, "Other" was the most often reported source of information which most influenced the students' decision to enroll in the College.

The students were asked to designate which contacts or materials would have been most helpful if they were remaking their college enrollment decision. In the analysis of their responses according to their residency backgrounds, clear trends appeared for six sources. Table 40 shows that talking with University students would have been helpful to 77.8 percent of the rural/farm students, 70.8 percent of the students from a village/small-town, 70.8 percent of the students from a small city, and 56.9 percent of the students from a large city. It also shows that talking with high school counselors would have been important to 44.4 percent of the rural/farm students and 45.8 percent of the students from a village/small town, while it would have been important to only 29.2 percent of students from a small city, and only 36.8 percent of students from a large city.

Table 40 also shows that while 31.1 percent of rural/farm students would have found talking with a high school faculty member helpful, no more than 16.7 percent of the students in any other residency background

TABLE 40. - Comparison of students' residency background and perceived preference for sources of information which influence the enrollment decision.

Source	Rural/Farm (N=45)	Village/ Small Town (N=24)	Small City (N=24)	Large City (N=19)
Visit to campus	40 88.9%	21 87.5%	21 87.5%	17 89.5%
University students	35 77.8%	17 70.8%	17 70.8%	11 57.9%
University graduates	24 53.3%	16 66.7%	13 54.2%	9 47.4%
High school counselors	20 44.4%	11 45.8%	7 29.2%	7 36.8%
High school teacher	14 31.1%	4 16.7%	3 12.5%	3 15.8%
University open house	14 31.1%	11 45.8%	12 50.0%	9 47.4%
University athletic event	11 24.4%	6 25.0%	8 33.3%	3 15.8%
Newspaper/magazine	4 8.9%	4 16.7%	2 8.3%	2 10.5%
Television	3 6.7%	0 0.0%	2 8.3%	1 5.3%
Radio	2 4.4%	1 4.2%	2 8.3%	0 0.0%
Poster in school	4 8.9%	2 8.3%	3 12.5%	1 5.3%
Phone call from the College	22 48.9%	8 33.3%	11 45.8%	9 47.4%
Article about the College	24 53.3%	14 58.3%	11 45.8%	8 42.1%

TABLE 40. - continued.

Source	Rural/Farm (N=45)	Village/ Small City (N=24)	Small City (N=24)	Large City (N=19)
College booth/display	11 24.4%	5 20.8%	7 29.2%	3 15.8%
Letter from the College	28 62.2%	17 70.8%	13 54.2%	7 36.8%
Letter from the University	22 48.9%	15 62.5%	12 50.0%	7 36.8%
University admissions counselor	14 31.1%	14 58.3%	14 58.3%	8 42.1%
University publications	16 35.6%	11 45.8%	12 50.0%	5 26.3%
University faculty/staff	21 46.7%	18 75.0%	13 54.2%	11 57.9%
High school career day/ night program	13 28.9%	4 16.7%	6 25.0%	5 26.3%
Other contact	2 4.4%	0 0.0%	1 4.2%	1 5.3%

category reported a similar response. In rating the helpfulness of attending a University open house, 31.1 percent of the rural/farm students responded, but no fewer than 45.8 percent of the students in each of the other residency categories designated that attending a University open house would have been valuable.

In rating two additional sources of information which they would have found helpful, students from the village/small town and small city categories rated University admissions personnel and University publications to be helpful more often than did students from a large city or rural/farm students. Potential contact with University admissions personnel was rated to be helpful by 58.3 percent of both the students from a village/small town and the students from a small city, while it was rated to be helpful by only 31.1 percent of the rural/farm students, and 42.1 percent of the students from a large city. Also, 45.8 percent of the students from a village/small town and 50.0 percent of the students from a small city rated University publications as a source of information which they would find helpful, while only 35.6 percent of the rural/farm students and 26.3 percent of the students from a large city indicated that they would find these publications helpful.

3. Recruitment Activities

Students' responses for the helpfulness of selected recruitment activities were analyzed across the four residency categories. Students' responses differed significantly for five recruitment activities.

Table 41 shows that 83.7 percent of the rural/farm students and 72.7 percent of the students from a large city found talking with University

TABLE 41. - Chi-Square comparison of students' residency background and preference for talking with University graduates.

Type of Contact	Rural/Farm (N=43)	Village/ Small Town (N=23)	Small City (N=24)	Large City (N=18)
Helpful	36 83.7%	10 43.5%	11 45.8%	13 72.2%
Not helpful	0 0.0%	1 4.3%	0 0.0%	1 5.6%
No contact	7 16.3%	12 52.2%	13 54.2%	4 22.2%
Total	43 100.0%	23 100.0%	24 100.0%	18 100.0%
	Chi-Square = 18.81*			

* Significant at the .05 level.

graduates helpful, while only 43.5 percent of the students from a village/small town and 45.8 percent of the students from a small city found talking with University graduates helpful. These results are statistically significant.

In reporting the helpfulness of talking with a high school counselor, Table 42 shows that 54.5 percent of the rural/farm students, 34.8 percent of the students from a village/small town, 33.3 percent of the students from a small city, and 44.4 percent of the students from a large city reported the contact to be helpful. The significance of these findings is strengthened by the reported results that 25.0 percent of the rural/farm students, 30.4 percent of the students from a village/small town, 54.5 percent of the students from a small city, and 50.0 percent of the students from a large city did not have any discussions about college enrollment with a high school counselor.

The results in Table 42 can be compared with the findings in Table 43, which provide an overview of the students' ratings of discussions with high school faculty. While 57.8 percent of the rural/farm students reported that a discussion with a high school faculty member was helpful, only 27.3 percent of the students from a village/small town, 16.7 percent of the students from a small city, and 17.6 percent of the students from a large city reported the same discussion to be helpful. The results of the comparison between these groups is statistically significant.

Table 44 shows that attendance at an FFA activity on the campus of the University was reported by 43.9 percent of the rural/farm students and 9.1 percent of the students from a village/small town, to be h pful

TABLE 42. - Chi-Square comparison of students' residency background and preference for talking with high school counselors.

Type of Contact	Rural/Farm (N=44)	Village/ Small Town (N=23)	Small City (N=24)	Large City (N=18)
Helpful	24 54.5%	8 34.8%	8 33.3%	8 44.4%
Not helpful	9 20.5%	8 34.8%	3 12.5%	1 5.6%
No contact	11 25.0%	7 30.4%	13 54.2%	9 50.0%
Total	44 100.0%	23 100.0%	24 100.0%	18 100.0%
	Chi-Square = 12.16*			

* Significant at the .05 level.

TABLE 43. - Chi-Square comparison of students' residency background and preference for talking with high school faculty.

Type of Contact	Rural/Farm (N=45)	Village/ Small Town (N=22)	Small City (N=24)	Large City (N=17)
Helpful	26 57.8%	6 27.3%	4 16.7%	3 17.6%
Not helpful	9 20.0%	6 27.3%	4 16.7%	3 17.6%
No contact	10 22.2%	10 45.5%	16 66.7%	11 64.7%
Total	45 100.0%	22 100.0%	24 100.0%	17 100.0%
	Chi-Square = 20.60*			

* Significant at the .05 level.

TABLE 44. - Chi-Square comparison of students' residency background and preference for attending an FFA program on campus.

Type of Contact	Rural/Farm (N=41)	Village/ Small Town (N=22)	Small City (N=24)	Large City (N=17)
Helpful	18 43.9%	2 9.1%	0 0.0%	0 0.0%
Not helpful	0 0.0%	1 4.5%	0 0.0%	1 5.9%
No contact	23 56.1%	19 86.4%	24 100.0%	16 94.1%
Total	41 100.0%	22 100.0%	24 100.0%	17 100.0%
	Chi-Square = 30.17*			

* Significant at the .05 level.

in making their College enrollment decision. No students from a small city or large city reported being influenced positively by attending an FFA event, but only 9.1 percent of the students from a village/small town and 5.9 percent of the students from a large city indicated that attending an FFA activity on the campus was a negative influence on their college enrollment decision. In fact, 86.4 percent of the students from a village/small town, 100.0 percent of the students from a small city, and 94.1 percent of the students from a large city had not attended an FFA activity on campus. These results represent a statistically significant difference between the four residency categories.

Similar results in Table 45 show that 42.5 percent of the rural/farm students, 9.1 percent of the students from a village/small town, and only 4.3 percent of the students from a small city reported that attending a 4-H activity on campus was helpful. The significance of these findings becomes clear as 57.5 percent of the rural/farm students, 86.4 percent of the students from a village/small town, 95.7 percent of the students from a small city, and 94.1 percent of the students from a large city reported that they had not attended a 4-H activity on campus.

4. Timing of College Choice

In reporting their decision to apply for admission to Michigan State University, only the rural/farm students showed any notable difference in the timing of their decision. Table 46 shows that even though the greatest percentage of students in every residency category made their decision to apply for admission to the University after their graduation from high school, this percentage was much lower for rural/farm students

TABLE 45. - Chi-Square comparison of students' residency background and preference for attending a 4-H program on campus.

Type of Contact	Rural/Farm (N=40)	Village/ Small Town (N=22)	Small City (N=23)	Large City (N=17)
Helpful	17 42.5%	2 9.1%	1 4.3%	0 0.0%
Not helpful	0 0.0%	1 4.5%	0 0.0%	1 5.9%
No contact	23 57.5%	19 86.4%	22 95.7%	16 94.1%
Total	40 100.0%	22 100.0%	23 100.0%	17 100.0%
	Chi-Square = 25.13*			

* Significant at the .05 level.

TABLE 46. - Comparison of students' residency background and timing of the decision to apply for admission to the University.

Type of Contact	Rural/Farm (N=44)	Village/ Small Town (N=26)	Small City (N=24)	Large City (N=20)
Before starting high school	5 11.4%	1 3.8%	0 0.0%	2 10.0%
Freshman year of high school	1 2.3%	2 7.7%	0 0.0%	0 0.0%
Sophomore year of high school	1 2.3%	1 3.8%	3 12.5%	0 0.0%
Junior year of high school	12 27.3%	4 15.4%	2 8.3%	1 5.0%
First half of senior year of high school	9 20.5%	2 7.7%	5 20.8%	4 20.0%
Second half of senior year of high school	3 6.8%	2 7.7%	3 12.5%	1 5.0%
After high school graduation	13 29.5%	14 53.8%	11 45.8%	12 60.0%
Total	44 100.0%	26 100.0%	24 100.0%	20 100.0%

than for students in all other residency categories. This was because 27.3 percent of the rural/farm students had made their decision to apply to the University during their junior year of high school. Only 15.4 percent of the students from a village/small town, 8.3 percent of the students from a small city, and 5.0 percent of the students from a large city made their decision to apply for admission during their junior year.

As reported in Table 47, the rural/farm students continued this trend for making their college choice decisions slightly earlier than students in the other residency categories, when reporting their decision to enroll in a major in the College of Agriculture and Natural Resources. Instead of making this choice during their junior year of high school, they reported slightly higher percentages of deciding on a major in the College during the first and second half of their senior year of high school, and slightly lower percentages of deciding on a major in the College after high school graduation.

TABLE 47. - Comparison of students' residency background and timing of the decision to enroll in a major in the College.

Type of Contact	Rural/Farm (N=45)	Village/ Small Town (N=26)	Small City (N=24)	Large City (N=20)
Before starting high school	4 8.9%	4 15.4%	3 12.5%	3 15.0%
Freshman year of high school	2 4.4%	1 3.8%	0 0.0%	1 5.0%
Sophomore year of high school	1 2.2%	0 0.0%	0 0.0%	0 0.0%
Junior year of high school	7 15.6%	6 23.1%	4 16.7%	2 10.0%
First half of senior year of high school	8 17.8%	2 7.7%	3 12.5%	2 10.0%
Second half of senior year of high school	6 13.3%	0 0.0%	1 4.2%	0 0.0%
After high school graduation	15 33.3%	11 42.3%	10 41.7%	11 55.0%
Not decided yet	2 4.4%	2 7.7%	3 12.5%	1 5.0%
Total	45 100.0%	26 100.0%	24 100.0%	20 100.0%

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary

1. Introduction

The overall responses of the sample population were compared with the tabulated analysis of the responses for the academic, ascribed, and social characteristic which were selected by the researcher. The students' responses for preference for specific types of information, specific sources of information, and specific recruitment techniques, as well as the timing of their college selection decisions, were compared by their freshmen or transfer admission status, their gender, and their residency background. First, the overall responses for the sample populations' preferences and college choice decisions are presented. The tabulated analysis for each of the selected academic, ascribed, and social characteristics follows the presentation of the overall responses.

2. Types of Information

Thirteen factors were rated by more than half of the total sample population to have been a positive influence on their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University. These factors included the quality of the academic programs, the University's academic reputation, the agriculture and natural resources reputation of the College and University, the atmosphere/appearance of the campus, the quality of the faculty, the diversity of the academic programs, the teaching reputation, the reputation of the faculty and staff, the location of the University, the

placement services, the distance of the University from the students' home, and the research reputation.

In the comparison between freshmen and transfer students, the freshmen demonstrated a significantly higher preference for seven types of information, including the large student population of the University the site of the campus, the residence halls and food served in them, their parents' preference for the University or College, the campus atmosphere/appearance, and the location of the University. The transfer students did not show a significantly higher preference for any types of information. Only when reporting their preference for the atmosphere/appearance of the campus, and the location of the University did the freshmen students designate a preference which at least 50 percent of the overall group also designated.

The comparison between male and female students showed that significantly more of the males were influenced positively by Big-Ten sports at the University, by the food in the dormitories, and by the student/faculty ratio. Neither of these preferences had been reported by a majority of the overall sample population. The female students did not demonstrate significantly higher preference for any types of information.

While a significantly higher percentage of the rural/farm students demonstrated that they were influenced positively by their parents' college or university preference, fewer than half of the total sample population agreed. The students from a village/small town joined the rural/farm students in rating the presence of Big-Ten sports as a positive influence significantly more often than did students from a

small city or large city. As was highlighted earlier, Big-Ten sports were not rated by more than half of the students to be a positive influence in their decision to enroll.

While all residency categories of students, and therefore, the overall sample population, rated the agriculture and natural resources reputation of the University to be a positive influence, the highest level of positive influence was reported by the rural/farm students. The percent of students reporting it to be a positive influence decreased as the size of the population in the residency categories increased.

3. Sources of Information

Twenty-three students in the overall sample population reported that they first heard about the College of Agriculture and Natural Resources from their parents. In the comparison between freshmen and transfer students, a notably higher percentage of transfer students reported that they had first heard about the College from University admissions personnel. While in the comparison between male and female students, a higher percentage of the female students reported first learning about the College through written publications. The comparison between students from various residency backgrounds showed that a higher percentage of students from a large city reported learning about the College from friends and University admissions personnel, while a higher percentage of students from the other three residency categories reported first learning about the College from parents and high school teachers. In summary, the highest percentage of students in every comparison category, except the students from a large city in the residency

background analysis, reported that their parents were the source from which they first heard about the College.

Twenty-six students reported that their parents were the most influential source of information on their decision to enroll in the College of Agriculture and Natural Resources, while 12 more students reported that they had been most influenced by a College faculty or staff members. In the comparison between freshmen and transfer students only a slightly higher percentage of the freshmen students reported that they were most influenced by their parents.

In comparison between male and female students, a notably higher percentage of the male students reported that their parents had been the most influential source of information on their decision to enroll, while a higher percentage of the female students reported that College publications and "Other" sources were the most influential in their enrollment decision. No notable differences were reported between students in various residency background categories. A summary of the most influential sources of information shows that the highest percentage of freshmen students and male students reported that their parents were the most influential source, while "Other" sources were most often reported by transfer students and female students.

When asked to report which sources of information they would have found helpful if they were remaking their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University, more than half of the students reported that they found a visit to the campus, a discussion with a University student or graduate,

a letter from the College, or a meeting with a University faculty or staff member helpful.

In the comparison between freshmen and transfer students, a notably larger percentage of the freshmen students reported that they would have found the opportunity to talk with high school counselors or teachers helpful. A higher percentage of the freshmen students also indicated that they would like to have received a phone call from the College, a publication from the University, or an opportunity to attend a career day/night program while in high school. None of the categories for which the freshmen students reported a higher percentage of helpful ratings matched with the five categories which received 50 percent or higher helpful rating from the overall sample population. The transfer students did not report a higher "helpful" rating for any sources of information.

Male students reported an notably higher percentage of helpful responses than did female students for attending an athletic event on campus, while a higher percentage of female students reported that reading an article regarding the College, and attending a high school career day/night would have been helpful. None of the three categories for which the male students reported a notably higher percentage of helpful ratings matched the five categories which 50 percent or more of the total sample population would have found helpful if remaking their college enrollment decision.

A variety of trends developed in the comparison of the responses between the residency background categories. Rural/farm students reported a higher level of helpful responses for talking with the

University students than did students in other residency background categories. The percentage of helpful responses decreased as the size of the population in the residency categories increased. A higher percentage of rural/farm students and students from a village/small town reported talking with high school counselors to be helpful than did students from a small city or large city. Students in the four residency categories provided a similar set of helpful responses for receiving a letter from the College of Agriculture and Natural Resources.

In comparison with students from all other residency backgrounds, a clearly higher percentage of the rural/farm students reported that talking with a high school faculty member would have been helpful in remaking their college enrollment decision. In comparison with rural/farm students, a distinctly higher percentage of students from a village/small town, small city, and large city reported that attending a University open house would have been helpful if they were remaking their college enrollment decision.

Students from a village/small town reported a notably higher helpful response than students in any other category, when reporting the perceived value of receiving a letter from the University, or the value of meeting with a University faculty or staff member.

The students from a village/small town and the students from a small city reported a higher percentage of helpful responses than did students from a large city and rural/farm students in rating the perceived helpfulness of meeting with a University admissions counselor or reading University publications.

In only two of the five categories which more than 50 percent of the students in the overall sample population reported a helpful response, did there develop a notable trend. These two factors included the students' helpful rating for talking with a University student and meeting with a University faculty or staff member. While the rural/farm students reported the highest helpful response rate of any residency group, all of the groups rated a discussion with a University student to be helpful in more than 50 percent of the responses. More than 50 percent of the students in every residency background category except for rural/farm students responded that they would find meeting with a University faculty member to be helpful.

4. Recruitment Activities

Students were asked to respond to the helpfulness of 23 selected recruitment activities. In consideration of 21 of the 23 recruitment activities, more than 50 percent of the individuals who reported experiencing each activity rated it as helpful. These factors included visiting a family member or friend on campus, talking with University students or graduates, talking with high school counselors or teachers, participating in a University open house or athletic event, seeing a television advertisement or story, receiving a phone call from the College, reading an article about the College, see a College booth or display, receiving a letter from the College or University, meeting with a University admissions counselor or faculty member, receiving a University publication, attending a career day/evening program while in high school, and attending an FFA or 4-H program on campus. Only 44

percent of the students who saw a poster about the College or University in high school, and 43 percent of the students who heard a radio advertisement or story about the College or University found the contact to be helpful.

The comparison between freshmen and transfer students' response for the helpfulness of various recruitment activities demonstrates that the freshmen students reported a significantly higher helpful rating for talking with University graduates, talking with high school teachers and counselors, receiving a letter from the College of Agriculture and Natural Resources and from the University, receiving a University publication, and for attending an FFA activity on the campus. The comparison also shows a higher helpful rating from the freshmen students hearing a radio advertisement or story, but even so only 11.1 percent of the freshmen students rated a radio advertisement or story about the College or University to be helpful. Transfer students gave a significantly higher helpful rating to visiting friends on the campus than did freshmen students.

A comparison between male and female students showed that a significantly higher percentage of male students found that visiting a friend and attending an athletic event on campus to be helpful, while a significantly higher percentage of female students found talking with a high school faculty member and attending a 4-H program on campus to be helpful in making their college enrollment decision. Each of the recruitment activities for which a significant difference was found had been rated to be helpful by more than 50 percent of the students who experienced that activity.

In a comparison between students from all residency background categories, a significantly higher percentage of the rural/farm students reported that they had found talking with a high school faculty member, and attending FFA or 4-H activities on the campus to be helpful. A significantly higher percentage of the rural/farm students were joined by the students from a large city in reporting that they found talking with University graduates and high school counselors helpful. All four of these significant differences were found for recruitment activities in which more than 50 percent of the students who experienced the activity reported it to be helpful.

5. Timing of College Choice

In reporting the timing of the decision to apply for admission to the University, the largest number of students in the overall sample population reported making their decision to apply during their junior and senior year of high school, or after their graduation from high school. The comparison between freshmen and transfer students showed that a significantly higher percentage of the freshmen made their decision to apply during their junior or senior year of high school, while a significantly higher percentage of the transfer students did not make their decision to apply for admission until after high school graduation.

When comparing male and female students, no notable differences were reported in the timing of the college application decision. The comparison between students from various residency backgrounds shows that the largest percentage of the rural/farm students made their decision to

apply for admission to the University during their junior year of high school, while a notably higher percentage of students in all other residency categories reported making their application decision after high school graduation.

The largest number of students in the overall sample population reported that they made their decision to enroll in the College of Agriculture and Natural Resources during their junior and senior year of high school, and after high school graduation. In the comparison between freshmen and transfer students, a significantly higher percentage of the freshmen students reported making their decision to enroll in the College during their junior and senior years of high school, while a significantly higher percentage of the transfer students reported that they had decided after high school graduation.

Just as in reporting their decisions to apply for admission to the University, there were no notable differences reported between male and female students in the timing of their decision to enroll in the College of Agriculture and Natural Resources. Only a small difference between rural/farm students and those students from all other residency backgrounds was reported. A slightly higher percentage of the rural/farm students reported that they had made their decision to enroll in the College during their junior and senior years of high school, while a slightly higher percentage of the students from all other residency background categories reported that they had made their decision to enroll after their graduation from high school.

B. Conclusions and Recommendations

1. Introduction

A series of conclusions are made as a result of the findings and summary. First, conclusions are made for the students' preferences for specific types of information. These are followed by conclusions of their preference for specific sources of information, their preference for participating in specific recruitment activities, and the timing of their college choice decision.

Recommendations follow each of the conclusions. Although these recommendations are based on the findings of the study as summarized in the conclusions, they are influenced by the research studies reviewed, and the background and experiences of the researcher, as a student, teacher, and administrator in public secondary and postsecondary educational institutions.

2. Types of Information

Conclusion: More than half of the students in the overall sample rated thirteen types of information to be a positive influence in their decision to enroll in the College of Agriculture and Natural Resources at Michigan State University. These sources of information included the quality of the academic programs, the University's academic reputation, the agriculture and natural resources reputation of the College and University, the quality of the faculty, the reputation of the faculty and staff, the teaching and research reputation of the University, the location of the University, the atmosphere/appearance of the campus, and the social atmosphere of the University.

Recommendation: General recruitment materials used by the College of Agriculture and Natural Resources should highlight these qualities of the College and University. Additional opportunities should be developed to expose prospective students to these characteristics through visitation to the campus and interaction with individuals who are influential references in the students' college selection process.

Conclusion: In the comparison between freshmen and transfer students, the freshmen students reported a significantly higher positive influence for seven sources of information. The sources for which the freshmen showed a preference included the size of the campus, the atmosphere/appearance of the campus, the large student population of the University, the residence halls and food served in them, the location of the University, and their parents preference for the College or University.

Recommendation: These particular characteristics should be emphasized in interaction with prospective students who are still in high school, and who plan to start their postsecondary studies at the University. Also, opportunities for prospective freshman students to visit the dormitories could be developed, but eating in the dormitories may not be an important recruitment activity. Only 26.8 percent of the freshmen said that food in the residence halls was a positive influence while the remaining 73.2 percent reported that either it was a negative influence or not important in their enrollment decision. Programs should be developed which would expose the parents of prospective freshman students to the attributes of Michigan State University and the College of Agriculture and Natural Resources.

Conclusion: In the comparison between male and female students, male students designated a significantly higher positive influence for the presence of Big-Ten sports, the food in the University residence halls, and the student/faculty ratio.

Recommendation: Because 50 percent of the male students considered the presence of Big-Ten sports to be a positive influence on their enrollment decision, recruitment programs for males should include an opportunity for them to attend an athletic event. Recruitment activities or materials which are targeted to male populations should include references to the Big-Ten sports program.

Even though male students reported a significantly higher positive influence for the dormitory food, and the student/faculty ratio, a far greater percent of male students felt that these factors were unimportant or a negative influence on their decision to enroll, so careful consideration should be given to emphasizing these characteristics in recruitment activities or materials.

Conclusion: Rural/farm students indicated significantly higher positive influence for their parents' college preference than did students from the other residency background categories.

Recommendation: Recruitment of prospective students from rural areas and farms should take into consideration the importance of the parents' preference to the prospective students' college selection. Contacts with the parents of rural/farm students should be strengthened, or specific activities and materials should be developed which enhance the parents' opinions regarding the College and University.

Conclusion: Rural/farm students and students from a village/small town rated that the presence of Big-Ten sports was a positive influence on their enrollment decision significantly more often than did the students from a small city or large city.

Recommendation: Because nearly half of the rural/farm students and students from a village/small town reported that Big-Ten sports were a positive influence in their college selection process, recruitment activities which are conducted for prospective students from rural areas and small towns should highlight the presence of the Big-Ten athletic programs through discussion, written publications or audio-visuals, or opportunities for attendance at a Big-Ten sports event.

Conclusion: Although more than half of the students from every residency background category rated the agriculture and natural resources reputation of the University to be a positive influence on their decision to enroll, a significantly higher percentage of rural/farm students rated it to be a positive influence.

Recommendation: Because a vast majority of students from all residency categories reported this to be a positive influence in their college selection process, all recruitment activities and materials from the College should include the agriculture and natural resources reputation of the College and University, but this specific factor should be highlighted for prospective students from rural/farm backgrounds.

3. Sources of Information

Conclusion: The largest percentage of the overall sample population reported the they first heard about the College of Agriculture and Natural Resources from their parents.

Recommendation: This conclusion strengthened previous recommendations that additional contact with the parents of prospective students would be valuable because they have been the source from which students first heard about the College. Even so, the students reported a variety of initial sources of information about the college, including high school teachers, friends, and other students enrolled in the College. Therefore, general awareness programs about the College would be appropriate for youth audiences and professionals who work closely with prospective University students.

Conclusion: The largest percentage of students in the overall sample population indicated that the source of information which most influenced their decision to enroll in the College was parents, but "Other" sources also influenced a major percentage of the students in the overall sample population.

Recommendation: The reasoning and recommendation for this conclusion follow closely with the previous recommendation. Recruitment activities and materials should pay special attention to the importance of the parents' opinions about the College and University.

Conclusion: In the comparison between freshmen and transfer students, a slightly higher percentage of the transfer students indicated that they first heard about the College of Agriculture and Natural Resources from University admissions personnel.

Recommendation: Clearly the University admissions personnel are telling prospective students about the opportunities which exist in the majors in the College of Agriculture and Natural Resources. Because the

transfer students are receiving information from these admission personnel, an inservice opportunity for them and the counselors at community colleges throughout the state, should be appropriate to maintain or improve the quantity and quality of the information which is being shared.

Conclusion: In the analysis of the most influential source of information about the College, the comparison between freshmen and transfer students indicates that a slightly higher percentage of the freshmen students were most influenced by their parents.

Recommendation: This conclusion is substantiated by several others, but also points out that opportunities for students and parents to learn about the College of Agriculture and Natural Resources and Michigan State University in a program which includes the student and one or both parents would be especially helpful for prospective students planning to come to the University as freshmen.

Conclusion: In the comparison between male and female students, a notably higher percentage of the female students reported that they first learned about the College by reading College publications.

Recommendations: Part of the recruitment plans for the College and University include letters and publications to prospective students. These materials would be especially valuable for prospective female students. Therefore, publications should be sent to prospective female students and might focus on the opportunities and accomplishments of women in agriculture and natural resources occupations. Recommendations for the timing of recruitment activities will be made in the appropriate section, and should be considered in conjunction with this recommendation.

Conclusion: The analysis of the most influential source of information shows that in the comparison between male and female students, a notably larger percent of the male students reported that their parents were the most influential source of information in making their decision to enroll in the College.

Recommendation: This finding is particularly intriguing, and in planning for recruitment activities, a special effort should be made to involve the parents of prospective male students in the recruitment activities because they are critically important in these students' college selection process.

Conclusion: In the comparison between male and female students, slightly higher percentage of the female students indicated that the most influential source of information in their decision to enroll were College publications.

Recommendations: This follows the earlier conclusion that prospective female students first hear about the College of Agriculture and Natural Resources through College publications. Therefore, both prospective female freshman and prospective female transfer students should receive the appropriately designed College publications when they are making their college selection decisions. The publications should take into account the preferences, expectations, and aptitudes of these prospective female students, as well as build awareness and interest in majors and career fields where women are underrepresented.

Conclusion: Rural/farm students reported that parents were the first source from which they heard about the College of Agriculture and Natural

Resources, more often than students in any other residency category. The percentage of students who responded that their parents were the first source of information decreased as the size of the population in the residency categories increased. A similar pattern developed as the students reported the incidence of first learning about the College from a high school teacher.

Recommendation: Parents were again identified to be a critical source of information about the College. Additionally, high school teachers were identified as an initial source of information for prospective students from a rural/farm background. This builds the case for developing a strong set of recruitment and general information activities which increase the awareness and knowledge of parents and high school teachers about the educational opportunities in the College and the employment opportunities available to students upon the successful completion of a baccalaureate degree program. These recruitment activities should be focused on the parents and teachers of prospective students from rural/farm backgrounds.

Conclusion: The highest percentage of students from a large city reported that they first heard about the College from friends and University admissions personnel.

Recommendation: Two potential recommendations arise out of this conclusion. The first is that University recruitment staff or admissions personnel are including the College of Agriculture and Natural Resources in their presentations to prospective students from large city, and the College should provide any inservice training, current information, or

special materials to these individuals to assist them in their recruitment efforts. Also, because these students pointed out that they first heard about the College through these University personnel, there is a need to provide high school teachers, counselors, and parents of prospective students in large cities with additional exposure to the College so that they become the sources from which these prospective students first hear about the College. A variety of materials or activities should be designed to raise awareness about the College among these counselors, teachers, and parents of prospective students in large cities.

Conclusion: More than half of the overall sample population reported that if they were remaking their decision to attend Michigan State University's College of Agriculture and Natural Resources they would have found five sources of information helpful. These sources included a visit to campus, a discussion with a Michigan State University student or graduate, a letter from the College of Agriculture and Natural Resources, and a meeting with a faculty or staff member.

Recommendation: Clearly, this suggests that opportunities to visit the campus, and meeting with students and faculty during the visit are important to prospective students. This conclusion also suggests that written correspondence should be sent from the College to the prospective students, and that alumni should be utilized to meet with prospective students. The timing of these visits should be planned according to the recommendations made regarding the timing of the prospective students' college choice.

Conclusion: In the comparison between freshmen and transfer students, the freshmen students reported five sources of information which they would have found helpful if they were remaking their college enrollment decision. More than 30 percent of the freshmen students in the sample population reported that the opportunity to talk with high school counselors and teachers, receiving a phone call from the College or a publication from the University, or attending a career day/night program while in high school would have been helpful if they were remaking their college enrollment decision.

Recommendation: This strengthens a previous recommendation to build a stronger awareness and understanding about the College among high school counselors and teachers. New dimensions are added to the personal contacts which potential freshmen students prefer, by their designation that phone calls from the College and University publications would be helpful. Plans should be made to target high school students in these recruitment activities. The University recruitment activities should be expanded to host career day/night programs at local high schools. These programs could involve many or all of the colleges in the University and could be maketed as a service to schools and prospective students.

Conclusion: When asked what sources of information they would find helpful in remaking their college enrollment decision, male students reported a higher preference for attending a University athletic event than did female students.

Recommendation: This conclusion reconfirms an earlier conclusion that prospective male students are more often influenced positively by

the presence of Big-Ten sports, and strengthens the recommendation that prospective male students should be provided an opportunity to attend an athletic event as a part of the recruitment plan of the College of Agriculture and Natural Resources. Because only 31 percent of the male students rated this source of information to be helpful, attendance at an athletic event should not be required and optional activities should be planned for students who choose not to attend.

Conclusion: In the comparison between male and female students, a higher percentage of the female students reported that they would have found reading an article about the College and attending a high school career day/night program helpful in remaking their college enrollment decision.

Recommendation: Just as a higher percentage of the female students had rated that the most influential source of information in their college choice decision, they rated that an article would be helpful if they were remaking their college choice. This strengthens the recommendation to target prospective female students with publications about the College. Because a higher percentage of the female students also reported that they would like to attend a career day/night program, special attention should be given to inviting prospective female students to these activities.

Conclusion: In the comparison of students form various residency backgrounds, the rural/farm students reported the highest preference for talking with University students and for talking with high school teachers, when rating the sources of information which they would have found valuable in remaking their college enrollment decision.

Recommendation: Prospective students from farms and rural areas should be provided opportunities to meet with University students. A mentoring program could be established between students enrolled in the College of Agriculture and Natural Resources and prospective students. This conclusion also showed that prospective rural/farm students would liked to have talked with their high school teachers. This follows closely with their earlier identification that high school teachers were often the source from which they first heard about the College. A general awareness program should be designed and implemented which would strengthen the knowledge of teachers in science, agriscience, and environmental science, about the College and University.

Conclusion: The rural/farm students were joined by the students from a village/small town in reporting two contacts that they would have found helpful in remaking their decision regarding college enrollment. These factors included talking with high school counselors and receiving a letter from the College of Agriculture and Natural Resources.

Recommendation: Even though these trends appeared, a high enough percentage of all students responded positively, it is recommended that a general awareness program be implemented for high school counselors in all communities, with a special emphasis on counselors in school systems that serve small towns and villages. A similar recommendation will serve as a guide for sending letters to prospective students. A special emphasis should be placed on sending personalized correspondence to prospective students from a village/small town and a rural/farm background.

Conclusion: In consideration of which sources would have been helpful if they were remaking their college enrollment decision, students from a village/small town, small city, and large city all reported a higher preference for participating in an University open house than did rural/farm students.

Recommendation: Even though this conclusion is clear, 31 percent of the students from a rural/farm background reported that participating in an University open house would have been helpful. Therefore, prospective students from all residency backgrounds should continue to be invited to open house programs, but the greatest emphasis should be placed on involving students from a village/small town, small city, and large city background.

Conclusion: Students from a village/small town reported a higher preference for receiving a letter from the University and for meeting with an University faculty member, than did students in all other residency categories.

Recommendation: This recommendation follows closely with the previous one because no less than 36.8 percent of the students from all residency categories reported that receiving a letter from the University or meeting with a University faculty would be a helpful influence if they were remaking their college enrollment decision. Although letters from the University, and meeting with an University faculty or staff member were reported by more students from a village/small town to be helpful, these activities should be implemented or continued, with all prospective students. A special priority on the students from a village/small town could be developed for these activities.

Conclusion: In a comparison with students from all residency categories, a higher percentage of students from a village/small town and students from a small city reported that they would have found meeting with an University admissions counselor and reading University publications valuable if they were remaking their college enrollment decision.

Recommendation: This conclusion points out that students from a village/small town and from a small city showed a higher preference for meeting with University admissions personnel and for receiving publications about the University. Even so, no fewer than 26 percent of the students in every residency category reported that they would have found these sources of information to be helpful if they were remaking their college enrollment decision. All prospective students should be offered opportunities to meet with University admissions personnel, and should be provided with University publications, but a special focus on providing these contacts to prospective students from a village/small town and small city should be developed.

4. Recruitment Activities

Conclusion: Of 23 recruitment activities which were evaluated by the sample population, 21 were found to be helpful by more than 50 percent of the respondents who experienced each activity.

Recommendation: Prospective students should be recruited by utilizing the following activities which may or may not be part of the formal recruitment plan: visiting family members and friends on campus, talking with University students and alumni, talking with high school

counselors and teachers, attending a University open house or athletic event, receiving and reading a letter from the College or University, seeing a College booth/display or a television program about the College or University, receiving and reading a University publication or articles about the College, receiving a phone call from the College, meeting with a University admissions counselor or with University faculty or staff, attending a high school career day/night program, and by attending FFA or 4-H programs on the University campus. It is also recommended that posters and radio advertisements or stories should not be utilized to recruit students to the College of Agriculture and Natural Resources at Michigan State University.

Conclusion: In a comparison between freshmen and transfer students, eight recruitment activities were reported to be significantly more helpful by freshmen students.

Recommendation: Even though freshmen students reported a higher positive response for eight recruitment activities, more than 24 percent of the transfer students reported these same activities to be helpful for six of the eight factors. Therefore, it is recommended that the following recruitment activities be utilized with both freshmen and transfer students, with a special priority on freshmen students: talking with University alumni, talking with high school counselors, receiving letters from the College and University, and receiving University publications. It is also recommended, that because talking with high school teachers and attending FFA activities is only important to those students who come to the University and College as first-time freshmen,

that the utilization of activities should be oriented towards recruiting prospective freshmen students.

Conclusion: Transfer students reported that visiting a friend on campus was helpful significantly more often than did freshmen students.

Recommendation: While there was a significantly higher rating reported for the helpfulness of visiting a friend on campus by the transfer students, partially, this occurred because more transfer students had the opportunity to visit a friend on the campus of the University. Therefore, it is recommended that prospective freshmen and transfer students be provided an opportunity to visit a friend on the campus. If prospective freshmen students do not have friends to visit, a visit should be scheduled as part of a mentoring program between prospective freshmen and currently enrolled University students.

Conclusion: A significantly higher number of male students reported that visiting a friend on campus was helpful, in a comparison between male and female students.

Recommendation: As was reported in the previous recommendation, even though more male students reported that visiting a friend on campus was helpful in their enrollment decision, this occurred partially because more male students had taken an opportunity to visit a friend on the campus. A mentoring program between female students currently enrolled at the University and prospective female students could provide an opportunity for these prospective female students to visit their mentor on campus.

Conclusion: A comparison between male and female students showed that talking to high school teachers and attending a 4-H program on

campus was reported by a significantly higher percentage of female students to be helpful.

Recommendation: In consideration of the opportunity to talk with high school teachers, even though more female students reported this contact to be helpful, more than 30 percent of the male students reported it to be helpful. Therefore, both prospective male and female students should have opportunities to talk with high school counselors who are knowledgable about the College of Agriculture and Natural Resources and Michigan State University. This recommendation supports earlier recommendations to strengthen the awareness of high school counselors about the College and University.

In reference to the value of on campus 4-H programs, more female than male students reported attending these activities. Therefore, it is recommended that these programs should incorporate opportunities for both prospective male and female students to learn more about the educational and employment opportunities available through the College of Agriculture and Natural Resources.

Conclusion: In a comparison between students from all four residency background categories, rural/farm students and students from a large city, reported that two activities were helpful at a significantly higher level than students from a village/small town or from a small city.

Recommendation: These two activities included the opportunities to talk with University alumni and to talk with high school counselors. Even though more of the rural/farm students and students from a large city indicated a higher preference for these sources, no less than one-third

of the students from every residency category reported that these recruitment activities were helpful. Therefore, although a special focus should be placed on prospective rural/farm students and prospective students from a large city, opportunities should be available for all prospective students to talk with University alumni and high school counselors.

Conclusion: Significantly more rural/farm students reported that talking with high school teachers and attending 4-H or FFA activities on the campus was helpful, than students from other residency background categories.

Recommendation: This conclusion shows that rural/farm found talking with high school teachers, and attending 4-H and FFA programs helpful more often than students from other residency backgrounds because the other students reported that they did not talk with high school teachers about their college enrollment decision, and that they did not attend 4-H or FFA activities on the University campus. This supports an earlier recommendation that College recruitment efforts should include a general awareness program to develop awareness and foster greater knowledge about the College of Agriculture and Natural Resources on the part of high school teachers.

It is recommended that the College recruitment staff should seek out opportunities to work with prospective students from a village/small town, a small city, and a large city in youth programs that bring these prospective students to the campus, providing exposure to the educational and employment opportunities available through the College.

5. Timing Of College Choice

Conclusion: Almost 75 percent of the overall sample population reported making their decision to apply for admission to the University and to enroll in the College of Agriculture and Natural Resources during their junior or senior year of high school or after graduation from high school.

Recommendation: General recruitment activities should start during the prospective students' sophomore year of high school and for those students that do not enter into the College of Agriculture and Natural Resources as freshmen students, these activities should continue through the first two years of the prospective students' postsecondary studies. This study has not dealt with the broader scope of outreach activities that could be designed and implemented to foster greater interest, development, and aptitude in a variety of academic subjects which relate directly to the fields of agriculture and natural resources. Therefore, recruitment activities as defined in the study are only those activities that transmit information regarding Michigan State University, the College of Agriculture and Natural Resources, and the majors within the College.

Conclusion: In the comparison between freshmen and transfer students in the College of Agriculture and Natural Resources, more than 75 percent of the freshmen students decided to apply for admission to the University during their junior or senior year of high school, while more than 80 percent of the transfer students did not make their decision to apply for admission to the University until after their graduation from high school.

Recommendation: Because of the timing of freshmen students decision to apply for admission to the University, recruitment activities designed to attract freshmen students to the University should start during the prospective students' sophomore year of high school and continue until the prospective student enrolls at the University. Recruitment activities designed to attract transfer students to the University should begin after the prospective student enrolls at Michigan State University.

Conclusion: In the comparison between freshmen and transfer students, more than 55 percent of the freshmen students decided to pursue a major in the College of Agriculture and Natural Resources during their junior or senior year of high school while more than 70 percent of the transfer students did not make their decision to pursue a major in the College of Agriculture and Natural Resources until after they graduated from high school.

Recommendation: Recruitment activities designed to attract freshmen and transfer students to specific majors in the College of Agriculture and Natural Resources should be conducted simultaneously with the more general recruitment activities designed to attract these students to the University, as described in the previous recommendation.

Conclusion: In the comparison between the four residency background categories, the rural/farm students made their decision to apply for admission to Michigan State University and to enroll in the College of Agriculture and Natural Resources earlier than students in other residency categories.

Recommendation: Recruitment activities designed for prospective students with a rural/farm background should be implemented earlier than those activities designed for prospective students from a village/small town, small city, or large city.

C. Recommendations for Further Study

This study identified the preferences of students in the College of Agriculture and Natural Resources in completing their college selection process. These preferences included the types of information, sources of information, recruitment activities, and the timing of the students' college choice. After a summary of the overall responses was reported, comparisons were made based on the students' freshmen or transfer admission status, gender, and residency backgrounds. Data was collected which compared the influence of five additional academic characteristics including the students' high school grade point average and academic rank, the students' age at the beginning of the postsecondary studies of the University, the size of the graduation class from which the student came, and whether the students were enrolled in vocational agriculture courses at the secondary level. The analysis of the tabulation of these additional academic factors would provide the basis for further study.

Data was also collected which compared the students across six additional social characteristic categories. These categories included the income level of the students' parental family, the occupation of the students' mothers and fathers, the distance of the students' home from the University, the students' preference for an agriculture or natural resources major, and whether the student was a 4-H member during primary

or secondary school. The analysis of the tabulation of these additional social factors would provide the basis for further study.

This study analyzed the comparison between freshmen students and students who transferred from other colleges outside Michigan State University. Additional research needs to be done to study the preferences and timing of the college choice decision of students who transfer from the Institute of Agricultural Technology and from other colleges within the University. Additional research on the population of students which start their academic pursuits in the College of Agriculture and Natural Resources and later switch to another college within the University might also reveal valuable findings.

While this study surveyed the ethnicity of the entering class in the College of Agriculture and Natural Resources, the percentage of ethnic minorities in the sample population was so small that analysis would not have been valuable. Additional research needs to be conducted to better understand the preferences and timing of college choice of ethnic minorities.

The researcher observed that a small number of foreign students were enrolling in the College of Agriculture and Natural Resources, primarily under the sponsorship of the United States Agency for International Development. Research should be conducted to understand the preferences and timing of the college to understand the preferences and timing of the college choice decision of these students.

This study surveyed only the students who selected majors in the College of Agriculture and Natural Resources. Additional research should

be conducted to highlight the preferences and timing of the college choice decisions of students who pursue majors closely allied with the College of Agriculture and Natural Resources, such as preveterinary medicine, entomology, biology, landscape architecture, and others.

There is a serious nationwide shortfall of graduates from several of the majors in the College of Agriculture and Natural Resources. Yet, many of positions which would be available to graduates of these majors are being filled by the graduates of other baccalaureate programs. Research should be conducted in order to develop a better understanding of the preferences and timing of college choice of the individuals who fill these professional positions without an academic preparation in these fields.

The study showed that parents are the most influential source of information for students enrolling in the College of Agriculture and Natural Resources of Michigan State University. Additional research needs to be done to reveal if the students' mothers or fathers, or both, are influential in the students' enrollment decision process.

The study also showed that a large percentage of the students identified "Other" as the most influential source of information about the College. Additional research needs to be done to identify these other sources.

The study showed that many students consider other educational institutions before enrolling at Michigan State University. Additional research needs to be completed that would identify what colleges and universities the students considered, and what characteristics of these institutions were attractive or unattractive to them.

The study showed that the respondents participated in a variety of extracurricular activities during high school. Many students reported "Other" extracurricular activities. Because these activities may present opportunities to present recruitment materials, or to host educational or competitive programs jointly with the extracurricular organization to which the students belong, additional research should be conducted to further understand the participation of the prospective students in extracurricular activities

The study revealed several preferences for receiving College publications. Additional research should be completed which would identify what current or new publications would be found to be helpful and what information would be desired in the publications.

A notable percentage of the students in the sample population also reported that teachers were the source from which they first heard about the College and University or that they were the most influential source of information about the College or University. Additional research needs to be completed that would identify which high school teachers are providing information about the College and University to prospective students.

The study was conducted during Fall Term 1984, utilizing the incoming freshmen and transfer students as the potential sample population. Therefore, the conclusions and recommendations were made as a result of the tabulation of their responses. A comparative analysis of the responses from the original sample population with current incoming classes of freshmen and transfer students would provide an additional opportunity for further study.

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APPENDICES

APPENDIX A

Survey developed by Gene Graham

APPENDIX A

Michigan State University

College of Agriculture and Natural Resources

Student Inventory

September 19, 1984

As a member of the College of Agriculture and Natural Resources at Michigan State University, your input will always be valued. By completing this survey, you can contribute to the development of future programs for prospective students. Presenting all students with the best possible educational opportunities is vitally important to the College. This inventory is designed to provide information regarding the decision-making process that you went through to select your specific major within the College of Agriculture and Natural Resources at MSU. It is hoped that you will respond to every question. Thank you for your input.

YOUR STUDENT NUMBER IS..._____.

PLEASE PLACE AN (X) IN FRONT OF THE BEST RESPONSE.

1. Your major is...

___(1) ANR Education
___(2) ANR Communications
___(3) Agri. Engineering
___(4) Agri. Engineering Tech.
___(5) Agri. Biochemistry
___(6) Animal Sciences
___(7) Building Construction
___(8) Crop and Soil Sciences
___(9) Food Systems Management
___(10) Rec. & Youth Leadership
___(11) Nat. Res. and Env. Education
___(12) Food Science/Human Nutrition
___(13) Fisheries and Wildlife
___(14) Forestry
___(15) Horticulture
___(16) Packaging
___(17) Park and Rec. Resources
___(18) Public Affairs Management
___(19) Resource Development
___(20) ANR No-Preference

2. Your sex is...

___(1) Male
___(2) Female

3. Your marital status is...

___(1) Married
___(2) Divorced
___(3) Single

4. Your age (today):

___(1) 17 or younger
___(2) 18
___(3) 19
___(4) 20
___(5) 21-24
___(6) 25 or older

5. You are...CHECK ONE ONLY

___(1) White/Caucasian
___(2) Black/Afro American
___(3) Chicano/Mexican American
___(4) Spanish American/Hispanic
___(5) American Indian
___(6) Asian/Pacific Islander
___(7) Other, (please specify) _____

6. Your place of home residency is...

___(1) Michigan, what county? _____
___(2) Outside Michigan, but in United States
___(3) Outside United States

7. Your residency background is...

___(1) Rural/Farm
___(2) Village (1-2,499)
___(3) Small Town (2,500 to 9,999)
___(4) Small City (10,000 to 49,999)
___(5) Large City (50,000 or more)

8. Your admissions status is...

___(1) First time to a university
___(2) Transfer from a community college, with 24 credits or less
___(3) Transfer from a community college, with more than 24 credits
___(4) Transfer from a four-year college
___(5) Transfer from another four-year MSU program

9. You graduated from what high school?

_____

10. Your high School was...

___(1) private/nondenominational
___(2) private/denominational
___(3) public

11. Your overall high school grade-point average?
(A=4.0, B=3.0, C=2.0, D=1.0, E=0.0.)

___(1) 3.50 to 4.00
___(2) 3.00 to 3.49
___(3) 2.50 to 2.99
___(4) less than 2.50

12. Your academic rank in high school?

___(1) top 20 percent
___(2) second 20 percent
___(3) middle 20 percent
___(4) fourth 20 percent
___(5) lowest 20 percent

13. Your high school graduating class size?

___(1) Less than 100
___(2) 100 to 199
___(3) 200 to 299
___(4) 300 to 399
___(5) 400 to 499
___(6) 500 or more

14. Your parents' feelings about the importance of post-high school education?

___(1) Very important
___(2) Important
___(3) Don't care, indifferent
___(4) Opposed to it
___(5) Very opposed to it

15. Your father's occupation: CHECK ONE ONLY		16. Your mother's occupation: CHECK ONE ONLY
___	(1) Artist/Performer	___
___	(2) Businessman/woman	___
___	(3) Clergy/Religious Worker	___
___	(4) Clerical Worker	___
___	(5) Engineer	___
___	(6) Farmer/Forester	___
___	(7) Homemaker (full-time)	___
___	(8) Lawyer/Legal Service	___
___	(9) Military	___
___	(10) Doctor/Dentist/Nurse/Health Occ.	___
___	(11) Research Scientist	___
___	(12) Teacher/Administrator	___
___	(13) Social Worker	___
___	(14) Worker, skilled or unskilled	___
___	(15) Federal/State/Local Employee	___
___	(16) Unemployed	___
___	(17) Other, (please specify)	___

_____

17. Your home is how many miles from Michigan State University?

___(1) Less than 10 miles
___(2) 10 to 24 miles
___(3) 25 to 49 miles
___(4) 50 to 99 miles
___(5) 100 to 249 miles
___(6) 250 or more miles

18. You were enrolled in a vocational agriculture program while in high school (or in an area vocational skill center)?

___(1) Yes
___(2) No

19. You were involved in what extracurricular activities during high school? CHECK ALL WHICH APPLY

___(1) Vocal and/or Inst. Music
___(2) Student Government
___(3) Newspaper/Yearbook
___(4) Debate/Speech
___(5) Drama/Theatre
___(6) Athletics
___(7) FFA
___(8) 4-H
___(9) Other (please specify)_____
_____

20. Your exposure to agriculture or natural resources is... CHECK ALL WHICH APPLY

___(1) None
___(2) Visited a farm
___(3) Worked on a farm
___(4) Lived on a farm
___(5) Visited agribusiness
___(6) Worked in agribusiness
___(7) Visited nature areas/forests
___(8) Worked at nature area/forest
___(9) Other (please specify)_____
_____

21. You had which of the following contacts with MSU and/or the College of Agriculture and Natural Resources (CANR) before you decided to enroll? Which were helpful or not helpful in your decision to enroll at MSU? CHECK EACH RESPONSE IN ONE CATEGORY

helpful	not helpful	no contact	
___	___	___	(1) visited family member on campus
___	___	___	(2) visited a friend on campus
___	___	___	(3) talked to MSU students
___	___	___	(4) talked to MSU graduates (alumni)
___	___	___	(5) talked to high school counselors
___	___	___	(6) talked to high school faculty
___	___	___	(7) participated in MSU open house
___	___	___	(8) attended an MSU athletic event
___	___	___	(9) saw a television advertisement/ article
___	___	___	(10) heard a radio advertisement/story
___	___	___	(11) saw a poster in school
___	___	___	(12) received a phone call from the college (CANR)
___	___	___	(13) read an article regarding the college (CANR)
___	___	___	(14) saw a college booth/display (CANR)
___	___	___	(15) received a letter from the college (CANR)
___	___	___	(16) received a letter from MSU
___	___	___	(17) met with a MSU admissions counselor
___	___	___	(18) received MSU publications
___	___	___	(19) met with a MSU faculty or staff member
___	___	___	(20) high school career day/evening
___	___	___	(21) attended a FFA program at MSU
___	___	___	(22) attended a 4-H program at MSU
___	___	___	(23) other contact, (please specify) _____
___	___	___	(24) other contact, (please specify) _____
___	___	___	(25) had no contact

22. You decided to apply for admission at Michigan State University?
___(1) before starting high school
___(2) freshman year of high school
___(3) sophomore year of high school

___(4) junior year of high school
___(5) first half of senior year of high school
___(6) second half of senior year of high school
___(7) after high school graduation

23. You decided on your major in the College of Agriculture and Natural Resources?
___(1) before starting high school
___(2) freshman year of high school
___(3) sophomore year of high school
___(4) junior year of high school
___(5) first half of senior year of high school
___(6) second half of senior year of high school
___(7) after high school graduation
___(8) haven't decided yet

24. You first heard about the College of Agriculture and Natural Resources (CANR) from whom? CHECK ONLY ONE

___(1) parents
___(2) high school counselor
___(3) high school teacher
___(4) CANR student
___(5) CANR graduate
___(6) brother or sister
___(7) friends
___(8) television/radio
___(9) newspapers/magazines
___(10) CANR visit to your high school
___(11) CANR college night presentation
___(12) CANR faculty or staff
___(13) CANR recruitment personnel
___(14) CANR publications
___(15) CANR mailings and memos
___(16) MSU admissions personnel
___(17) other, (please specify)_____
_____

25. Your decision to attend the College of Agriculture and Natural Resources at MSU was most influenced by...CHECK ONLY ONE

___(1) parents
___(2) high school counselor
___(3) high school teacher
___(4) CANR student
___(5) CANR graduate
___(6) brother or sister
___(7) friends
___(8) television/radio
___(9) newspapers/magazines
___(10) CANR visit to your high school
___(11) CANR college night presentation
___(12) CANR faculty or staff
___(13) CANR recruitment personnel
___(14) CANR publications
___(15) CANR mailings and memos
___(16) MSU admissions personnel
___(17) other, (please specify)_____
_____

26. The availability of financial aid, such as scholarships, grants, loans, and work-study programs was...
___(1) very important
___(2) somewhat important
___(3) not important

27. You received financial aid at MSU?
___(1) yes ___(2) no

28. You considered other four-year or two-year universities or colleges?
___(1) yes ___(2) no

If yes, what universities/colleges did you consider?

_____
_____

29. If you were making your decision regarding where you would like to attend college today, what contacts or materials would you find most helpful? CHECK ALL WHICH APPLY

___(1) visit to campus
___(2) talk to MSU students
___(3) talk to MSU graduates (alumni)

___(4) talk to high school counselors
___(5) talk to high school faculty
___(6) participate in MSU open house

___(7) attend an MSU athletic event
___(8) see a newspaper/magazine advertisement
___(9) see a television advertisement/article

___(10) hear a radio advertisement/story
___(11) see a poster in school
___(12) receive a phone call from the college (CANR)

___(13) read an article regarding the college (CANR)
___(14) see a college booth/display (CANR)
___(15) receive a letter from the college (CANR)

___(16) receive a letter from MSU
___(17) meet with a MSU admissions counselor
___(18) receive MSU publications

___(19) meet with a MSU faculty or staff member
___(20) attend a high school career day/evening
___(21) other contact, (please specify)

_____
___(22) other contact, (please specify)
_____

30. Which of the following features about MSU and the College of Agriculture and Natural Resources influenced your decision to enroll...positively or negatively? CHECK ALL OF WHICH APPLY

Positive	Negative	Not Applicable		
___	___	___	(1)	large student population
___	___	___	(2)	size of campus
___	___	___	(3)	quality of academic programs

Positive	Negative	Not Applicable	
___	___	___	(4) cost of tuition and housing
___	___	___	(5) academic reputation
___	___	___	(6) agriculture/natural resources reputation
___	___	___	(7) placement services and job opportunities
___	___	___	(8) student organizations
___	___	___	(9) other students on campus/friends preference
___	___	___	(10) faculty and staff reputation
___	___	___	(11) social atmosphere
___	___	___	(12) big-ten sports
___	___	___	(13) intramural sports/athletic facilities
___	___	___	(14) residence halls
___	___	___	(15) food
___	___	___	(16) distance from home
___	___	___	(17) quality of faculty
___	___	___	(18) parent's preference
___	___	___	(19) quality of student body
___	___	___	(20) contact with an MSU admissions officer
___	___	___	(21) contact with CANR recruitment officer
___	___	___	(22) campus atmosphere/appearance
___	___	___	(23) teaching reputation
___	___	___	(24) diversity of academic programs
___	___	___	(25) student/faculty ratio
___	___	___	(26) research reputation
___	___	___	(27) location of school
___	___	___	(28) three-term system
___	___	___	(29) high school counselor's advice
___	___	___	(30) other, (please specify) _____
___	___	___	(31) other, (please specify) _____

31. Do you have a specific job goal or job title in mind for yourself after you have completed your education at Michigan State University?

___(1) yes ___(2) no

IF YES, PLEASE SPECIFY _____

32. Your best estimate of the total taxable income of your parental family, last year (<u>not your own family if you are married</u>)? Consider income from all sources.

___(1) Less than $5,999
___(2) $6,000 to $9,999
___(3) $10,000 to $14,999
___(4) $15,000 to $19,999
___(5) $20,000 to $24,999
___(6) $25,000 to $29,999
___(7) $30,000 to $39,999
___(8) $40,000 to $49,999
___(9) $50,000 to $99,999
___(10) $100,000 or more

APPENDIX B

Survey developed by Gene Graham

Raw Data

APPENDIX B

Michigan State University

College of Agriculture and Natural Resources

Student Inventory

September 19, 1984

As a member of the College of Agriculture and Natural Resources at Michigan State University, your input will always be valued. By completing this survey, you can contribute to the development of future programs for prospective students. Presenting all students with the best possible educational opportunities is vitally important to the College. This inventory is designed to provide information regarding the decision-making process that you went through to select your specific major within the College of Agriculture and Natural Resources at MSU. It is hoped that you will respond to every question. Thank you for your input.

YOUR STUDENT NUMBER IS..._____.

PLEASE PLACE AN (X) IN FRONT OF THE BEST RESPONSE.

1. Your major is...

4	(1) ANR Education	2	(11) Nat. Res. and Env. Education
5	(2) ANR Communications	0	(12) Food Science/Human Nutrition
0	(3) Agri. Engineering	22	(13) Fisheries and Wildlife
1	(4) Agri. Engineering Tech.	9	(14) Forestry
1	(5) Agri. Biochemistry	13	(15) Horticulture
26	(6) Animal Sciences	8	(16) Packaging
4	(7) Building Construction	1	(17) Park and Rec. Resources
1	(8) Crop and Soil Sciences	1	(18) Public Affairs Management
7	(9) Food Systems Management	1	(19) Resource Development
1	(10) Rec. & Youth Leadership	13	(20) ANR No-Preference

2. Your sex is...

69	(1) Male	51	(2) Female

3. Your marital status is...

3	(1) Married	114	(3) Single
2	(2) Divorced		

4. Your age (today):

6	(1) 17 or younger	27	(4) 20
54	(2) 18	21	(5) 21-24
7	(3) 19	5	(6) 25 or older

5. You are...CHECK ONE ONLY

118 (1)	White/Caucasian	1 (4)	Spanish American/Hispanic
0 (2)	Black/Afro American	0 (5)	American Indian
0 (3)	Chicano/Mexican American	1 (6)	Asian/Pacific Islander
		0 (7)	Other, (please specify) _____

6. Your place of home residency is...

113 (1) Michigan, what county? _____
7 (2) Outside Michigan, but in United States
0 (3) Outside United States

7. Your residency background is...

48 (1)	Rural/Farm	24 (4)	Small City (10,000 to 49,999)
7 (2)	Village (1-2,499)	20 (5)	Large City (50,000 or more)
20 (3)	Small Town (2,500 to 9,999)		

8. Your admissions status is...

60 (1) First time to a university
3 (2) Transfer from a community college, with 24 credits or less
35 (3) Transfer from a community college, with more than 24 credits
22 (4) Transfer from a four-year college
0 (5) Transfer from another four-year MSU program

9. You graduated from what high school?

_____

10. Your high School was...

2 (1)	private/nondenominational	104 (3)	public
14 (2)	private/denominational		

11. Your overall high school grade-point average?
(A=4.0, B=3.0, C=2.0, D=1.0, E=0.0.)

34 (1)	3.50 to 4.00	28 (3)	2.50 to 2.99
56 (2)	3.00 to 3.49	1 (4)	less than 2.50

12. Your academic rank in high school?

60 (1)	top 20 percent	1 (4)	fourth 20 percent
32 (2)	second 20 percent	1 (5)	lowest 20 percent
22 (3)	middle 20 percent		

13. Your high school graduating class size?

20 (1)	Less than 100	8 (4)	300 to 399
34 (2)	100 to 199	20 (5)	400 to 499
24 (3)	200 to 299	13 (6)	500 or more

14. Your parents' feelings about the importance of post-high school education?

81 (1)	Very important	0 (4)	Opposed to it
36 (2)	Important	0 (5)	Very opposed to it
2 (3)	Don't care, indifferent		

15. Your father's occupation: CHECK ONE ONLY			16. Your mother's occupation: CHECK ONE ONLY
0	(1)	Artist/Performer	0
20	(2)	Businessman/woman	10
0	(3)	Clergy/Religious Worker	1
3	(4)	Clerical Worker	8
9	(5)	Engineer	0
23	(6)	Farmer/Forester	5
0	(7)	Homemaker (full-time)	26
0	(8)	Lawyer/Legal Service	0
0	(9)	Military	0
4	(10)	Doctor/Dentist/Nurse/Health Occ.	15
0	(11)	Research Scientist	0
5	(12)	Teacher/Administrator	13
0	(13)	Social Worker	1
29	(14)	Worker, skilled or unskilled	8
7	(15)	Federal/State/Local Employee	5
0	(16)	Unemployed	7
18	(17)	Other, (please specify)	16

17. Your home is how many miles from Michigan State University?

3	(1) Less than 10 miles	54	(4) 50 to 99 miles
5	(2) 10 to 24 miles	37	(5) 100 to 249 miles
10	(3) 25 to 49 miles	11	(6) 250 or more miles

18. You were enrolled in a vocational agriculture program while in high school (or in an area vocational skill center)?

32	(1) Yes	85	(2) No

19. You were involved in what extracurricular activities during high school? CHECK ALL WHICH APPLY

42	(1) Vocal and/or Inst. Music	68	(6) Athletics
26	(2) Student Government	23	(7) FFA
20	(3) Newspaper/Yearbook	31	(8) 4-H
9	(4) Debate/Speech	29	(9) Other (please specify)_____
24	(5) Drama/Theatre		_____

20. Your exposure to agriculture or natural resources is... CHECK ALL WHICH APPLY

5	(1) None	16	(6) Worked in agribusiness
38	(2) Visited a farm	71	(7) Visited nature areas/forests
57	(3) Worked on a farm	11	(8) Worked at nature area/forest
42	(4) Lived on a farm	20	(9) Other (please specify)_____
19	(5) Visited agribusiness		_____

21. You had which of the following contacts with MSU and/or the College of Agriculture and Natural Resources (CANR) before you decided to enroll? Which were helpful or not helpful in your decision to enroll at MSU? CHECK EACH RESPONSE IN ONE CATEGORY

helpful	not helpful	no contact		
30	4	75	(1)	visited family member on campus
46	3	59	(2)	visited a friend on campus
76	3	31	(3)	talked to MSU students
71	2	36	(4)	talked to MSU graduates (alumni)
48	21	41	(5)	talked to high school counselors
39	22	48	(6)	talked to high school faculty
19	5	84	(7)	participated in MSU open house
28	11	68	(8)	attended an MSU athletic event
17	5	85	(9)	saw a television advertisement/ article
6	8	90	(10)	heard a radio advertisement/story
7	9	89	(11)	saw a poster in school
11	6	88	(12)	received a phone call from the college (CANR)
46	6	56	(13)	read an article regarding the college (CANR)
21	4	81	(14)	saw a college booth/display (CANR)
55	8	45	(15)	received a letter from the college (CANR)
64	13	31	(16)	received a letter from MSU
49	5	52	(17)	met with a MSU admissions counselor
67	6	33	(18)	received MSU publications
56	3	46	(19)	met with a MSU faculty or staff member
15	5	83	(20)	high school career day/evening
20	2	83	(21)	attended a FFA program at MSU
20	2	81	(22)	attended a 4-H program at MSU
10	0	43	(23)	other contact, (please specify) _____
4	0	40	(24)	other contact, (please specify) _____
1	0	0	(25)	had no contact

22. You decided to apply for admission at Michigan State University?

8 (1) before starting high school
3 (2) freshman year of high school
5 (3) sophomore year of high school

19 (4) junior year of high school
20 (5) first half of senior year of high school
9 (6) second half of senior year of high school
51 (7) after high school graduation

23. You decided on your major in the College of Agriculture and Natural Resources?
14 (1) before starting high school
4 (2) freshman year of high school
1 (3) sophomore year of high school
19 (4) junior year of high school
15 (5) first half of senior year of high school
7 (6) second half of senior year of high school
48 (7) after high school graduation
8 (8) haven't decided yet

24. You first heard about the College of Agriculture and Natural Resources (CANR) from whom? CHECK ONLY ONE

23 (1) parents
7 (2) high school counselor
10 (3) high school teacher
6 (4) CANR student
6 (5) CANR graduate
8 (6) brother or sister
12 (7) friends
1 (8) television/radio
2 (9) newspapers/magazines
0 (10) CANR visit to your high school
3 (11) CANR college night presentation
3 (12) CANR faculty or staff
2 (13) CANR recruitment personnel
8 (14) CANR publications
5 (15) CANR mailings and memos
8 (16) MSU admissions personnel
9 (17) other, (please specify)_____

25. Your decision to attend the College of Agriculture and Natural Resources at MSU was most influenced by...CHECK ONLY ONE

26 (1) parents
6 (2) high school counselor
5 (3) high school teacher
1 (4) CANR student
6 (5) CANR graduate
4 (6) brother or sister
3 (7) friends
1 (8) television/radio
1 (9) newspapers/magazines
1 (10) CANR visit to your high school
0 (11) CANR college night presentation
12 (12) CANR faculty or staff
3 (13) CANR recruitment personnel
9 (14) CANR publications
3 (15) CANR mailings and memos
4 (16) MSU admissions personnel
25 (17) other, (please specify)_____

26. The availability of financial aid, such as scholarships, grants, loans, and work-study programs was...
49 (1) very important
31 (2) somewhat important
36 (3) not important

27. You received financial aid at MSU?
49 (1) yes
67 (2) no

28. You considered other four-year or two-year universities or colleges?
72 (1) yes
41 (2) no

If yes, what universities/colleges did you consider?

_____

_____

29. If you were making your decision regarding where you would like to attend college today, what contacts or materials would you find most helpful? CHECK ALL WHICH APPLY

99 (1) visit to campus
80 (2) talk to MSU students
62 (3) talk to MSU graduates (alumni)

45 (4) talk to high school counselors
24 (5) talk to high school faculty
46 (6) participate in MSU open house

28 (7) attend an MSU athletic event
12 (8) see a newspaper/magazine advertisement
6 (9) see a television advertisement/article

5 (10) hear a radio advertisement/story
10 (11) see a poster in school
50 (12) receive a phone call from the college (CANR)

57 (13) read an article regarding the college (CANR)
26 (14) see a college booth/display (CANR)
65 (15) receive a letter from the college (CANR)

56 (16) receive a letter from MSU
50 (17) meet with a MSU admissions counselor
44 (18) receive MSU publications

64 (19) meet with a MSU faculty or staff member
28 (20) attend a high school career day/evening
5 (21) other contact, (please specify)

_____

0 (22) other contact, (please specify)

_____

30. Which of the following features about MSU and the College of Agriculture and Natural Resources influenced your decision to enroll...positively or negatively? CHECK ALL OF WHICH APPLY

Positive	Negative	Not Applicable		
31	34	41	(1)	large student population
39	33	35	(2)	size of campus
112	0	1	(3)	quality of academic programs

Positive	Negative	Not Applicable		
27	45	35	(4)	cost of tuition and housing
106	2	3	(5)	academic reputation
103	0	11	(6)	agriculture/natural resources reputation
65	6	37	(7)	placement services and job opportunities
42	9	53	(8)	student organizations
49	6	50	(9)	other students on campus/friends preference
68	1	39	(10)	faculty and staff reputation
66	4	35	(11)	social atmosphere
42	10	56	(12)	big-ten sports
42	5	58	(13)	intramural sports/athletic facilities
40	8	58	(14)	residence halls
20	21	63	(15)	food
64	17	30	(16)	distance from home
82	1	25	(17)	quality of faculty
39	6	62	(18)	parent's preference
37	12	56	(19)	quality of student body
31	7	63	(20)	contact with an MSU admissions officer
15	6	80	(21)	contact with CANR recruitment officer
94	2	13	(22)	campus atmosphere/appearance
79	0	25	(23)	teaching reputation
79	1	24	(24)	diversity of academic programs
19	26	58	(25)	student/faculty ratio
63	3	38	(26)	research reputation
66	12	26	(27)	location of school
33	21	47	(28)	three-term system
20	10	68	(29)	high school counselor's advice
2	3	22	(30)	other, (please specify) _____
0	2	19	(31)	other, (please specify) _____

31. Do you have a specific job goal or job title in mind for yourself after you have completed your education at Michigan State University?

59 (1) yes 56 (2) no

IF YES, PLEASE SPECIFY _____

32. Your best estimate of the total taxable income of your parental family, last year (not your own family if you are married)? Consider income from all sources.

3	(1) Less than $5,999	11	(6) $25,000 to $29,999
2	(2) $6,000 to $9,999	20	(7) $30,000 to $39,999
9	(3) $10,000 to $14,999	16	(8) $40,000 to $49,999
10	(4) $15,000 to $19,999	14	(9) $50,000 to $99,999
9	(5) $20,000 to $24,999	4	(10) $100,000 or more